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The Resource for the ATARI CLASSIC and the ATARI ST

Issue 60 February/March

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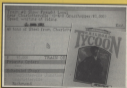
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CONTENTS

Issue 60 - February/March 1993

GIMME NO STICK! A new joystick reviewed by Pete Davison	10
TEN PIN BOWLING	13
FIRST STEPS IN ASSEMBLY Part 4 by Daniel Leo	14
INFOCAB by Chris Pattenson A great help in solving Infocom's adventures	16
THE TIPSTER	18
DIET-STUDIO reviewed by Paul Rixon	21
RENOVATE IT! by Ed Hall Don't ignore old programs - change them!	22
INVADERS by Steve Lokay From Font and Display Editor to a full game	26
WHAT 'AVE WE 'ERE by Police Robert The Atari Scene in France	26
NUMCON by Paul Saunders All the conversions you might need	28
PROGRAM EDITING SCREEN by David Sargeant	32
DISKBASE 1.0 reviewed by Charles A. Cole	38
TUTORIAL TIME by Ian Finlayson An easy way to format printing with things	38
SOFTWARE REVIEWS ENGINEER - MYSTIC LAND - EUREKA - JOHNNY'S PROBLEM - OPERATION BLOOD - THINKER	40

ST FILE

HAND HELD FUN Lyrics reviewed by John Dwanney	48
ALL ABOARD! Damon Howarth reviews RAILROAD TYCOON	50
PAUL RIXON'S PD WORLD This issue looks at programs in mono	52
FLYING DOWN THE WIRES John S Davison files AIR WARRIOR	54
MAKING MUSIC by John S Davison Will the Police be Atari's saviour?	56
PREMIER MANAGER reviewed by Damon Howarth	58
LOTUS III reviewed by Damon Howarth	59
THE SPOT COLUMN by Glen Guy	60
ST GAMES - STORM MASTER AND UTOPIA	62

EDITORIAL	4	CONTACT	47
MAILBAG	6	SOURCES	8C

BONUS - LAST FLIGHT OF THE PHOENIX	17
THE ACCESSORY SHOP	43

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Mailbag

Allan J Palmer
sits in the hot seat
at the sorting office
awaiting your
letters on all things
Atari - get writing!

Hi, I'm Allan Palmer and, as mentioned last issue, I've volunteered to take on the post of Mailbag Editor for *Your Atari User*. To start things off, I have a mixed batch of several letters and I've worked my way through them.

I hope you find the first entries useful but please write in with questions and comments on things Atari. Let's have lots of feedback - I'd like this column to be as interactive as possible. There is quite a lot of work in getting a column like this together so perhaps I can make a few requests. If writing with pen, please write legibly, preferably your name and address, if using a word processor, a clever ribbon would be appreciated to reduce the operators and start/stop/s acknowledge your sources if you find some interesting information or statistics.

That's that over so... on with the letters.

A DEDICATION

Many people have contributed to making the Atari Classics the only best machine of all and so I'd like to call a dedication to the first column of notes:

"To Bill Wilkinson - who read of ROM 5.0 and 5.5, who was involved in the development of *Atari BASIC*, who devised the original TTYO program in ATSEC, and whose 'Amiga! Atari' column in *COMPUTE!* magazine was always a great source of 8088 information - thanks for all the insight you made available to America!"

A CORRECTION TO THE CONNECTION ...

Steve Atwood from Waverly, West Midlands writes:

"Thanks for publishing my article on the conversion of a SCART monitor and a 26125 video monitor via one lead to a ST (Issue 84, page 86). However, I did notice one small mistake in Figure 2 accompanying the article. Where the 9 pin plug leads the SCART connector, pin 3 (9 pin) and screen not to be linked to anything - I should be linked to pin 4 inside the SCART connector. You should let all the cables come from the 9 pin end into the SCART connector and then attach any resistors as necessary. Also make these leads onto the SCART pins, with any extra leads joining pin 3 to pin 4."

Thanks for putting us on the right lines, Steve.

DAISY DOT and TEXTPRO

D E Sanders of Croydon, Hants has a range of questions about these two PD utilities.

"With Daisy Dot I am having problems producing a document which contains two-colour for the printer, e.g. underlining. I can print the document to disk using TextPro. However, the desired result of underlining is not being achieved. Is Daisy Dot capable of producing underlined text and if so, how?"

Daisy Dot is an excellent print processor created by Ray Goldsack (2540 S. Juvenile Street, Denver, CO 80222, USA). The original PD version (Daisy Dot) and its successor Daisy Dot II are both in the Page 6 Public Domain Library. Which version of Daisy Dot are you using? The original Daisy Dot does not handle control codes and file files, so underlining is not possible with this version. Daisy Dot II, however, does have the capability to perform underlining (and many other features) through the use of its own control codes which you must include within your word processor documents instead of the word processor codes for these facilities before printing the file to disk (see Control Pin TextPro). In your TextPro document you must use "u" before and after the text you want underlined in order to toggle underlining on and off accordingly. I have successfully used Daisy Dot versions for some time now

when I need to produce superb-quality documents from word processor files created by both TextPro and PaperClip. I hope this helps you - if not, please drop me a line with more details, perhaps including a listing of your document as printed from both TextPro and Daisy Dot ...

"Can TextPro produce a preview facility whereby the finished document can be viewed in 80-column mode, on per the ability of the word processor in *Micro Office II*?"

Sorry, as far as I know, as in most word processors for the Atari Classic, a preview of all 80 columns on the standard 90 column E screen is not implemented. You can preview your document by printing to the E device and setting the width appropriately (refer to section 7 of the TextPro documentation). The 80 column screen can be difficult to read on domestic televisions, and is intended for systems with greater screens. However, if anyone knows otherwise, please let us all know!

LOCATION 53775 ...

In issue 85's Mailbag, Chris Roberts asked for clarification of the use of the above memory location. Richard Egan of Scarborough, Canada and the Atari 8-bit Owner's of United wrote with information. Richard writes:

"The truth about MEMORY location 53775 is that the 0.5 is correct and the success rate wrong. The 0.5 of this location is in fact the serial data channel and 0.5 is the input/output channel (which is not used by the OS). The reason that the success rate is off wrong is that the mistake was also made on page 8, 10 of the Hardware Manual from the Technical reference team. Atari's official guide to the 8-bit, and the other books obviously used this manual on a number, thereby duplicating the error."

The anonymous Atariist from Bristol responds on this:

"The Atari Hardware Manual states that 8 bits of serial data including the start and stop bits are put into MEMORY 53775. The 8-bit serial input register, one bit of a three word 4-bit byte is held. The processor is then interrupted to indicate that there is an input data byte to be read from MEMORY, ready to be processed. The processor must respond to this interrupt and read MEMORY before the next data byte can be received, otherwise an input data 'over-run' will occur. This, of course, is indicated by bit 5

of `STATUS_BITS`, the serial port status register) and indicates that input data has been lost, which occurs if the `0` of `STATUS_BITS`, the interrupt request status register, has not been reset to "true" before the next input is complete.

There are also a few other registers involved in the Atari program: `CHRGCR` (SR, character) gives a single byte with which copy to the screen (a simplified bit of the number of bytes transmitted); a character new flag would then be set to `CHRGST` (SR, a value of 255 at this location would mean that it has been sent). `CHRGCR` also uses `SR` and `SRPRR` (SR, a value of 255). A row would indicate a full buffer for a comparison of values between the two locations is that the bytes transmitted.

Also, in the Technical Reference Notes' Hardware Manual page 61-65 where serial input is mentioned, `SRPRR` is called an 8 bit parallel input register when `SRPRR` stands for serial input not parallel.

Thanks guys, I hope this clarifies the situation for Chris.

LA PLUME DE LUMIERE?..

Christian Delouis writes from Amstutz in France:

The only happy with New Atari User because in France there is nothing for Atari 800 for a long long time. I want to stop to give readers that they are lucky because I bought 4 issues and 2 reader disks from Page 9 - in the U.K. a reader would pay £7, but for me it costs £7 plus £3 postage plus £1.17 for customs duty! The only good thing in France to think disks that seem to be cheaper - 80 Ds/DK for about \$4. I have a little problem, I found a light pen and I don't know how to use it. I hope you can help me.

Yes, light pens seem to be available now. They were produced by Atari U.S. in the early days, but seem to have had limited distribution. One story that went the rounds was that Atari were worried about people jacking the pens at their services too fast and smothering the glass... Anyway, turning to the always useful "Mapping the Atari" from COMPUTED by Ian Chadwick gives us a starting point -

location

564 LPT004 Light pen horizontal value
565 LPT005 Light pen vertical value
602 STK004 Value of joystick port 1

The light pen horizontal and vertical positions are not the same as the normal row and column screen positions. The vertical positions are numbered from 0 to the top to 131 at the bottom. Horizontal positions start from 0 at the left, and within the horizontal position number 255, it reads to zero and begins counting again towards

the right hand side, giving a total of 228 horizontal positions. Both LPT004 and LPT005 are modified when the light pen trigger is pressed (`STKCR` = 15). See Character raster that because of the number of readable positions and their small size, certain letters must be given if using light pen values in a program.

The closest example of programming using these locations that I could find was in Atari User Vol. 3, No. 80 Feb. 88 where Andy Wiley provided a BASIC listing for a game using the EE Light Gun - which is essentially just another form of Light Pen...

If I had either of these accessories, I would experiment to see what sort of BASIC code would be needed to utilize them. However, for the meantime, use `STKCR` to detect if the trigger is pushed, then LPT004 and LPT005 to get the Light Pen coordinates - then convert these values into screen columns (X) and row (Y) values appropriate to the Graphics Mode you are in. In order to use the LOCATE SCREENVAL statement to return the numeric code (0-255) of the character beneath that point, if you have success Christian, why not submit an article/demonstration program to New Atari User?

MORE GAMES!

Daniel Danneback from Brighton, Kansas is a games enthusiast:

"I'm writing to you concerning some of the companies that turn out 8-bit games, including one of the best, Digipops, who produce some of the most amusing games I've ever seen). With many games that have been produced for the C64, including the room, Minkler (w/ The Unsubscribers, etc.) and with many games produced in the honor of the Atari Classic's graphics and gameplay capabilities, I really believe that games such as those for the C64 could be produced for the Atari 8000 machines. When I see games such as Hardball, International Atomic, Zephyr, and Downfall, I just want to see an Atari 8-bit.

One of the many games that I'd like to see on the Atari Classic is Mission Wolf where a gun sight is controlled - this is used to shoot enemy soldiers, vehicles, aircraft, etc. among many different landscapes. Various weapons are available (eg. machine guns, rocket launchers, knives, grenades, etc.) and scores and health are collected. This is one of the many games that is quite possible on the Atari Classic's machine. Many people's attitude to the 8000 machines is that graphics such as those from Mission 8000, or the old long, is what is good on the Atari Classic will go, when many top computers have proved this wrong by far. If there is a company that will try and produce this type of game, I am positive that all 8-bit owners will buy them. This letter is also a big thank you to all

companies that support the Atari Classic."

Well, Daniel, thanks very much for your views. The good news is that a clone of Mission Wolf has been done as Operation Flood - programmed in Poland. Page 8 and Micro-Discuss may have copies and this issue of New Atari User should contain a review of the game. Let's hope that the central of interest in the Classic machines continues (especially in Europe) and that more games demonstrating the Classic's capabilities appear. Remember - support the people who produce these games and don't pirate copies!

TAPE TROUBLES AND KEYING KONFUSION ...

From P'Neta, Becht, Maryland:

"I have a BASIC and BASIC disks reader and thoroughly enjoy taping it in and writing it back in New Atari User. I have a problem when taping to games which come on cassette tape. Flipping tapes in the taping and checking it with Page 9, an outboard tape is created with no problem; but when I try to load the cassette tape by switching off the computer, etc., the second disk simply runs through and then the computer simply fails in BASIC. I am using good quality tapes and I have used many good quality tapes and I have used many good quality tapes and I have used many good quality tapes. Can you help?"

Well, I've owned my 410 recorder base's for a month or so over the last few years, so I'm a bit rusty on things to do with cassettes. However, I rate you say "... the data runs through and then the computer simply fails to BASIC." Does the outboard tape you're loading require BASIC? Are you holding down the OPTION key, as well as the START key when you're outloading? Is your OPTION key working? (Check it with the keyboard self-test) Anyone got any ideas?

Mr. Neta is also trying to type in the 8000PC4 program from issue 50:

"Unfortunately, by no I might, when typing in this program I cannot get the Page 9 codes to match those printed in the magazine. I do have copies of early issues of Page 9 which show all of the correct codes, but these have not helped. Can someone tell me what key presses are needed to obtain the control codes, or can someone let me have a copy of the program on tape? Any response would of course be recommended."

Using the control character and hexamer combinations in listings is always a nuisance for entering it in. I've advised you just haven't got the space to go through and let out all the key presses for such lists. However, perhaps a few things to watch out for may help - don't confuse the odd-

Mailbag

quit LT) and back slash (\) with the control F and control G characters, which act for lower case letters which are very close to their upper case partners (e.g. 'x' and 'X'). Also check for characters like inverted-control-del and inverse-control-left which control F and inverse-control G may also be likely to spot in a listing. Why not practice typing some of these combinations out and comparing them to the printed listings in old magazines? This anyone get any useful tips for typing in these sorts of program lists?

A NEW ATARI USER ...

13 year old Declan Williams wants some help in learning to program:
"I am now interested in Atari 8-bit prog ramming, but all I know is what to do on the 'Introduction to Programming 1' cassette, and that is only a fraction of the BASIC language. I have been looking for a book that will teach me all I need to know about programming as that I can write even a little sort of game. Please could you send a catalogue of books if possible?"

Well, what do the old-timers recommend for learning about programming the Atari Classics? I never knew Almond, Pinkel and Brown's Atari BASIC - a well-travelled guide, supplemented by 'Your Atari Computer' by Frodo, McNeil and Cook, but what books are still available now? Check out the Page 8 Accessory Shop books. If you have any suggestions to old Declan, or any books which he could acquire, why not contact him at: "David J. Miles", Blackhall, Enniskerry, Mid Glamorgan, CF23 6GR, Wales.

MEM.SAV ...

H.S. Wood of Bradford, West Yorkshire comments on the MEM.SAV file:
"I have been an avid writer that if you are using DOS 2.0, then you should immediately change to DOS 2.1. It has not been my experience to find DOS 2.0 as much better than 2.1 that is probably because it does most of my programming in machine code (ie, not Assembly)."

Currently, I am writing up the notes for a joystick port printer interface, which has been in use by me since 1987, and I have again come up against the problems caused by DOS 2.0. I had become rather complacent about the mail interface which in my case works perfectly with DOS 2.0 and DOS 3.1, but in trying to ensure in the notes that no problems will be found by somebody who might convert to another unit, it came to light that my success in this in the use of MEM.SAV.

The standard MEM.SAV is perfectly okay as I use one which was written by Simon Roberts and published in the June 1987

issue of Atari User. I also use RAMDisk with my DOS2.1 and it is probably worth mentioning that the printer routines remain better without MEM.SAV when using DOS 3. These findings made me wonder how on DOS2.1 user, without RAMDisk, cope with the only clear System MEM.SAV and this in turn brought me to the point of this letter. There are many articles in old magazines which are well worth getting copies. As in the case of this MEM.SAV routine, some could be of great value to many users of Atari 8 bit computers."

Well thanks for your thoughts, H.S. Would anyone like to comment on their experiences with MEM.SAV? And what about this joystick port printer interface - is this the findings of an article submission to Atari User? Regarding reprinting old magazine articles, I'll have to leave the editor to consider this - I don't know if copyright problems are involved at all. Additionally, I think it would be more beneficial if people took fresh looks at old subjects. I am sure that there are still new aspects to be written about subjects previously covered. Experienced gained since original publication may shed new light on techniques and the like. Are there any particular areas that you think should be revisited?

DEAD DISK DRIVE ...

From Herbert Spencer of Blackhall, West:

"My Atari 800 disk drive seems to have given up working for me so I wonder if any reader can advise me what is wrong with it or better still how I can repair it. The local repair shops seem only able to repair 18 bit equipment and have no facilities to test an 800 disk drive even if they could repair it."

Well recently, I worked well on my second drive but then the computer would not recognise it. I reconnected it in direct mode, having changed the drive cable number bank, but it still did not work. My other disk drive works well so there is nothing wrong with the computer or cable. When satisfied on the drive cables and the drive light illuminates, the motor then stops and does not respond to the computer's instructions. Has anyone any advice?"

Well, Herbert, my personal advice, having experienced similar problems with my 800 18 months or so ago, is to get in touch with Derek Fern of Micro-Diskware (011-252-0760). Derek diagnosed and cured the problem successfully. Any comments from anyone else?



Mailbag extra ...

Having completed my first Mailbag column, I popped the disk in the post and released ... and a couple of days later a large brown envelope arrived with some more interesting letters which had not been included in previous issues, together with the first trickle of letters following the publication of issue 59. Well, I booted up PaperTap and kept it tight ...

Before these arrive an issue of SAU that is all Mailbag, I will chat with the older correspondents in detail in my next column (issue 61), together with as much new mail as possible. In the meantime, I will just say 'thanks' to Drs Hamedani, M J O'Meara, Paul Harber, H S Wood, Nigel Ludlow, J J Madigan, Bob Dyer, Robert Francis, M A Francis, Martin Rowland, Arthur L Morris, Carol Andrews, Neil Rowlands, Fredrick van Wijngaert, J K Robinson, Andy Hart, Tom Kelpins and David Rowlands for their past correspondence, and I hope to include your comments and questions in the next issue.

For the moment, I'd like to take a look at the first letter that arrived since 'Let's announcement of the 'new' Mailbag ...

ATARI 8-BIT ENTHUSIASM LIVES! ...

Bob Dyer from Gwentland, West, writes:

"Great to hear you undertaken to become editor of Mailbag, again. I've always thought this is one area that has got in the truly neglected to it's full potential. Please send the letters fixed to?"

It's only a trickle so far - but I hope the drought will end soon ...

Bob explains the decision to drop the full-column glossy cover and is pleased with the latest issue ...

"The contents of issue 59 were among the best for a while. A good mix of features - not one kind of feature dominating the run sometimes happens. I liked the 'Speaker's Book review', the video 8-bit game reviews, the reviews profile, SuperScript update along with updates and all this backed up with news of new, quality software from your advertisers! Enthusiasm, if not money, certainly seems to have reached all corners of the Atari 8-bit community."

What do other readers feel about the mix of features? In the past I've even opened letters on Advertisers, Features, Complaints, etc. - should there be more issues like that or so, what subject(s) do you prefer a general mix of features?

Both also notes that he had made enquiries of the Mail but had not yet placed an order "...and because I prefer writing money orders for goods ... but simply because of the necessity I have to make every penny at the moment, it is a frustrating situation when one's conclusions as to high financial status or class, I can only say on a long time supporter of the *Mail* that that I WILL spend the money when I have it. I only hope the various companies can wait that long and don't take this lack of response as an absence of interest."

Some interesting and important points there. I am not going to delve into business economics and the like but just note the various circles indicate where companies are trying to make sales to increase their cash flow in order to expand and generate more product, but their customers have not got the money to buy large quantities of the products, so the companies don't make the sales ...

ISLAND THOUGHTS ...

Well, Mark Paterson from Bally for the Isle of Man is also pleased with the "new look" magazine, but with regard to the cover writes:

"The only problem with the new cover is the *filmmaker* around the staples. I read it out though each issue at several times to digest the wealth of information it offers. In particular this Assembly Language Tutorial, brilliant, and I hope, found that I must have been 20 very, very carefully for fear of a lost cover."

This is what is concerned that I've made to less about the cover. I actually thought the cover stack felt thinner than the interior pages. Hopefully, Les can take to making a bit stiffer if you'll pardon the expression for future issues.

"How many people get the mag just for the ST section, and who would read if this disappeared? Might have the department start doing special issues - who could it? I mean can't have much more to do with ST users here get other magazines, but not haven't."

It'll have to be considered if RAL should drop ST coverage ...

Mark continues by mentioning that in search of some "megagames" to play he went and bought a "CarnegieWay" (referring to the shape?) The game is "brill" but at £25 a time. He's beginning to see some good points about his Atari Classic system. Not only is the software cheaper, but "... Turbo BASIC appears to be a far more powerful language than any of the BASICs on the ST's, and I've repeatedly return to my Atari to play around (unusu-

ally) with it."

Mark concludes with these comments: "My advice to anyone who is thinking of buying a 20 bit system is to think of all the people you could let down if you stopped subscribing, and the 3-bit lighter shipped closer to death, I know this would sit very heavily on my conscience, so I am going to continue subscribing to RAL, and I shall keep using my Atari Classic regardless of developments in the 16 and 32 bit worlds. Long live the Atari Classic!"

I'm sure I speak for us all when I say thanks for your support and I hope many others share your view.

BOOKS REPAIR ...

From Cheshamfield, Hampshire, John Branting welcomes me to the "hot seat". He likes "...the idea of making greater use of the Mailbag feature and would like to see it utilising more space if this can be made available after all use of the most popular sections of my hobbyist magazine in the letters page and an expanded section in RAL would prove very popular.

Programming questions and answers are an obvious choice of subject and I would like to see more hints and tips on Amstracs particularly regarding disk filing and repairs to our equipment. Some of it is now regarding a high mileage and with no spare replacements available, keeping the old items on the road has a high priority.

In an effort to start the ball rolling here are details of a repair I carried out on my 8008Z."

At this point I have to interject and say that Page 8 and New Atari User cannot take responsibility for attempts at hardware repairs and modifications carried out by its readers. If in doubt - don't! However, for those with the knowledge/experience, here is John's advice.

"When about three years old my 8008Z developed a fault rendering it unusable. After some shopping around from repairers I ordered about £20 to look on it in respect of a successful repair. I got it fixed for £20 after a few attempts, I was told one of the independent circuits for chips had failed. They had gone the same fault occurred."

By this time my son was taking the computer to school and I had approached a G.LONG. The symptoms were that when switched on it would straight into the self test mode and I observed that RAM test would finally so I noticed the timing and looked intelligently at it and saw that one of the RAM chips was different to the others - hopefully the replacement fixed during the previous repair. The RAM chips are the 8 in a line along the left side of the printed circuit board. I also noted that they were fitted in holders making them easy to interchange

in desoldering required. We agreed with the reference numbers of the chips I sent to a local electronics shop but so pricing on the multiple amount and was fixed up with a replacement for £1.55. As I didn't know which one of eight of the eight was finally I was advised to also purchase a replacement reel, although only similar to a large pair of scissors with its specially curved ends and coating a gold wire than the chips, the rollers are aimed so it made right sort of removing the chips without damage. A further piece of useful advice was that the chips are to be damaged by handling (static in the bag) but that I should probably be sufficient to touch my fingers on to the work surface each time before handling.

On returning home I took out my number one, carefully fitted the new one and reconnected the board up to the power supply and TV and watched on. No difference. I then replaced No 2 with the one I had just received and BINGO on connecting up was greeted with a blue screen and the "MEMORY" indication. Incidentally there was no need to reinitialise the computer to test on re-implanted input data required.

Obviously I was lucky as I had expected the same symptoms previously and there was an indication of what had been done there. But as it happened to me twice it must have been happened to others and I hope the detail is of help to someone. A further aside of note - apparently not all models have the chips fitted in holders and desoldering without experience and a desoldering tool is not for the faint hearted.

As an afterthought to the repair it would be possible to get an indication of which RAM chip is at fault by the position of failure on the screen during the self test. Perhaps other readers could like to contribute their Amstrac experience."

Well, I wish John supplied his repair hints as I think as my fingers have been moved some typing.

NOW IT'S UP TO YOU! ...

Well, here's that for a start! I treat the trouble of correspondence for Mailbag will turn into a harvest and we see lots of interesting comments and questions listed answered in future issues. Don't be afraid to share your Atari Classic knowledge with others. If you wish to keep the Classic alive, then be part of the team and exchange ideas and information.

**Write to MAILBAG at
Page 6 Publishing,
P.O. Box 54, Stafford,
ST16 1DR**

Please mark your letter with 'MAILBAG' clearly at the top so it doesn't get lost



GIMME NO STICK!

says **Pete Davison**

The Cheetah Hollistik is a new type of controller for the NT and M bit machines which looks similar to the "joypad" controllers on some popular home consoles. The unit's shape controls one of a pair of take handles. This makes it very comfortable to hold, but does mean it really needs two hands to operate, one holding each handlebar. The controls include an eight-way rocker pad operated by your left thumb for directional control, and two fire buttons operated by your right thumb. There's also an analog stick located on the side of the unit between the handles, where it can't dig into your hand while you're holding the controller.

I tried the controller on five types of games - platform, racing, beat 'em up, flight simulation, and shoot 'em up - with two games in each category.

Platform games were represented by *Shadow of the Beast* and *Another World* - two well known platform challenges. The unit handled admirably, being very responsive and making playing these games almost a joy. However, it did work better with *Beast*, allowing me to get quite a long way into the game without trouble. In *Another World* jumps need to be very accurate and the Hollistik didn't quite make the grade. My only slight complaint is that occasionally your left thumb can slip on the pad, accidentally triggering unwanted jumps.

Next I tested the two superb racing games, *Microprose Grand Prix* and *Confidential Circus*. The Hollistik wasn't very good on these, in fact it was almost useless, so pushing up on the joystick to accelerate while pressing sideways to steer is not the easiest task to perform. It may be better on a game like *Lotus Turbo Challenge* where the fire button is used as the accelerator, but on these two games I hit it wasn't really suitable.

For flight simulators I chose *F-15 II* and *Flight Simulator 2*. I set *F-15 II* to the control level so I could just dive in and start flying, and found the Hollistik worked excellently. I found it less suited to the precise control required by *Flight Simulator*

II though. Nevertheless it still handled with accuracy, while remaining quite responsive. Overall, I thought it to be quite good with flight sims.

The point-to-point category is best run up, using *Barbarian II* and *Double Dragon II* as the test programs. In *Barbarian II* handles similarly to *Shadow of the Beast* only a bit more responsively. I had the same problem with *Double Dragon II* as with the platform games - racing up stairs not needed - but only occasionally. In general I found the Hollistik worked well with these beat 'em ups.

The final set of games includes the immortal shoot 'em ups *Blood Money* and *Anarchy*. With *Blood Money* the unit handled magnificently, with superb accuracy. The fire button stood up to the punishment as well. *Anarchy*, the Defender clone, didn't handle as well because of the rapid direction changes needed. Overall I'd say beatable type games such as *Blood Money* handle very well, while Defender type games such as *Anarchy* are a bit difficult to control with the joystick.

For completeness I also tested the Hollistik using *Spy vs Spy II* and *Demons on the March*. These are two of my favourite 8-bit games and I was interested to see how they fared with the joystick. *Spy vs Spy II* handled well except for one problem area. Normally, on an ordinary joystick you'd waggle it frantically to escape from the policeman, but this is nearly impossible with a joystick. Major control problems were more frequent in *Demons*. Many a time my thumb slipped on the pad and set off an unwanted chain of events, usually with fatal results.

In summary, I was quite impressed by the Hollistik, even though it does cause a few problems with certain types of games. At £69.99 it represents good value for the money, and is certainly very comfortable to use, but try it out with your favourite games before buying, as it may not suit everyone.

Product: THE HOLLISTICK
Manufacturer: Cheetah
Price: £69.99
Reviewed by Pete Davison

Odds and Ends

NEW MAGAZINES!

Well, what is the world coming to? In an complete ten years of supporting the AMA, it seems that there is a resurgence of interest world wide in the Atari Classic with magazines and newsletters springing up all over the place!

ATARI CLASSICS

Many of you will know that some dedicated fans here over in the States have been occupying for several months to get enough support to justify the launch of a new magazine dedicated to the 8-bit. And now, happily, they got the response they desired and were able to persuade a publisher to fund a new Atari magazine with the title...

The first issue of Atari Classics came out in December and was mailed free of charge to all those who pledged their support for the idea. It is very brave now this issue was mailed without pre-payment to hundreds of Atari Users who were invited to subscribe. This "Pioneer Issue" would be the first issue of your subscription if you took up the offer, otherwise you get this issue free. A set of magazine subscribers scheme!

The first issue is fantastic. It is over 100 pages including the most in depth and wide throughout the industry ever! It contains in more information at this stage than the presentation. This first issue seems to be very much a "feeling the way" issue with new columns starting and articles of what could be termed "interest" interest such as those in Timesky and the XEP 80. Perhaps there is more support for these projects in the US than here.

What is encouraging is the number of advertisements with different advertisers in this issue. Advertising support will be vital for the survival of Atari Classics and will surely be of interest to readers independently setting support for their machines. Let's hope that this is a good omen and that Atari Classics will herald a resurgence of Atari support throughout the world.

Atari Classics is published bi-monthly and you can subscribe for one year at a cost of \$10.00. Mail to: (US/Canada) payable by cheque or money order, UK, Euro, Japan & elsewhere, Write to Circulation Editor, Atari Classics, 170 Special Road, 911, France, UK 02085-0888, USA, Money orders should be payable to Atari Classics.

FROM SPENDER COUNTRY

Also featured in a Previous Edition of a new newsletter put together by David Buxton, John Macfarlane and Alan Gatten of the Two & Sixer team (see Group (TWAS)). This is an 85 newsletter with 70 pages and a double sided disk. This newsletter has an article of the Heavy Duty Owl's (Duck), an article on the 1080 Plus, a machine side article requested from Member as well as the instructions the three games that are on the disk, along with a number of other articles. These pages, such as the Letters, Page and Sales and Wants, contain only notices relating to your involvement and this is where the arrival of such newsletters is determined. This first issue is a commendable effort but it is hard to maintain the effort and quality without knowing that people are interested. If you are interested, get in touch with TWAS and let them know.

The information was available at the time of writing regarding costs but drops a line to David Buxton at TWAS, P.O. Box 5, Wallasey, Merseyside, UK, 0504-4300 and ask for more details. Enclose a cheque or money order addressed overnight on those days are being in for the love of it and the extra cost, please try.

VIVE ATARI!

With more surprising than Atari Classics is STAR ATARI a weekly little magazine published in Chile of all things Atari. It was sent to us with a very nice letter from the editor and the publisher explaining that the magazine was told to be the idea of a small group of enthusiasts and has grown to a full page magazine on sale on the successful of having...

The idea is slightly smaller than Atari but those 40 pages are packed out with interesting reviews, articles and programs for both the XLXX and the 80 with a bit towards the Atari. There are 100 programs in type in, including programs to modify Blinky's theory (Blink and Jokers), a nice map of Chile and lots of other stuff on the XLXX. Adapted to contain more than 1000 words of text. It's all in Spanish. If the magazine were in English I would recommend that you subscribe without hesitation but I am tempted to suggest that you subscribe anyway, or at least send the details. If you can read Spanish, you should not waste a further minute, subscribe!

Further say, the publishers will be happy to send you more details if you drop them a postcard to: STAR ATARI, Casilla 81000 SPANISH L. Crosses Central, Santiago de Chile, CHILE. They will send them a picture postcard anyway just to show that the Atari community worldwide made its regards to those who support the Star Atari!

MEANWHILE IN IRELAND ...

Not another newsletter headed in our post box recently, this time from Robert Fulton in Northern Ireland who has put together issue 1 of 'Irish Atari Day'.

This one is just 100 single sided A4 paper stapled together, very much in the fashion of other newsletters, but put together by someone who obviously knows a great deal about the Atari and writes to show that enthusiasm. There are a few articles, an (in-depth look at a 1080), look up from an early Page 2 issue and a few items and tips but Robert is really looking for some nice articles and says that he won't force anyone down!

Robert will be charging £1 for issue 2 of Irish Atari Day (probably just enough to cover the photocopying and postage) and if you want to share your support you might like to try. Write to Robert Fulton, 41 Ardaraire Crescent, Straive, Derry, Northern Ireland, Co. Derry, N. Ireland BT18 0PW.

PIRATES BEWARE!

These anti-pirate software have never been able to even beyond the ends of their fingers and, surely, cannot realize that printing what little new software is available nowadays could really spell the end of Atari Classics!

David Fort of Micro Movement has recently introduced two new games that would not otherwise have ever seen the light of day and, rightly, damaged to find that they are being pirated. It has to be more than damaged as his comments will show.

When the last few days, I have received information regarding pirate copies of my new software, in particular THE LOST TREASURES. This game was reviewed and reviewed in the last edition of New Atari Day and I had been on the market for over 10 weeks. It has taken me over two months work to finish, obtain the rights to produce, during the artwork and finally produce this game. It also involves a cash investment of at least £200 for each disk produced. That is why I got extremely angry and frustrated when I saw that The Lost Treasures is being pirated and distributed by an Atari User based in Britain.

As someone who is not a game, it is illegal to copy, sell and distribute pirated software. You risk having your equipment confiscated and have up to a £1000 fine.

Every Atari user I speak with comments on the lack of support they receive from Atari and other software companies. I was understand why they withdraw their support. I will have to find new sites to where to do the printing situation continues. I will simply adopt the new software as before by Atari, after which and leave you to find your own software. Unfortunately this action will affect the new printing Atari users that I cannot simply do back and forth situation change.

Every Atari user that I contact of the existence of this particular individual. His final of me I can do without and in case other suppliers will go to great lengths to support the 8-bit machine.

David Fort

FIRST STEPS IN ASSEMBLY

Welcome to the penultimate article in the series. This time we are mainly concerned with the labelling of machine code into BASIC. Machine code is first on its own, but there are things which are very complicated to program in machine code which BASIC does easily, for instance complicated calculations. If you combine these and machine code you get the best of both worlds.

Before we get into this, you need to be introduced to four new commands.

FOUR MORE COMMANDS

PSA - Push Accumulator onto stack

This command puts the value of the accumulator onto a set of memory addresses known as the stack.

The stack lives in page 1 (ie. \$100 to \$1FF). It works like a pile of papers in that when you put something on it, it goes onto the top of the stack. When you take something off the stack you start with the most recent byte. This arrangement is called a LIFO arrangement, ie. Last In First Out. The stack pointer in the status register is used by the processor to point to the top of the stack in page 1.

PSR - Push status reg. (R) onto stack

This puts the status register onto the stack.

PLA - Pull Accumulator from stack

Takes a byte from the top of the stack and stores it in the accumulator.

PLP - Pull Status reg.(R) from stack

Takes a byte from the top of the stack and puts it in the status register.

The main use of the above commands is in subroutines to make sure the registers are unchanged after the subroutine e.g.

```

PSR      : push status register onto stack
PSA      : push accumulator onto stack
TRX      : put
PSA      : X onto stack
PSR      : put
PSA      : R onto stack
---      : subroutines
PLA      : pull
TRV      : R register from stack
PLA      : pull
TRX      : X register from stack
PLA      : pull accumulator from stack
PLP      : pull status register from stack

```

Daniel Lea brings you some more commands and examples of programming in assembler

Notice in the example fairly the way the X and Y registers are put onto the stack since there are no direct commands available. Notice also, and more importantly the order in which the values are removed from the stack and compare it with how they are put on.

Also remember you don't, of course, need to go through this for the every subroutine, because often the values in A,X,Y and P don't matter after the subroutine or the results may be passed to main loop.

As well being used as above, the stack is also used in subroutines without your knowledge. When you DO something the current program-counter (ie. the point in the program the CPU is at) is stored on the stack and pulled off again when you RTS so it jumps back to the correct place. So you must be careful, especially in a subroutine, to pull off exactly the same number of bytes as you push on otherwise everything may mess up (the computer will most likely crash). You have been warned!

THE STACK POINTER

The stack pointer was mentioned earlier. Two commands can be used to alter or read its position in page 1. These are TRS (Transfer X to Stack pointer) and TRS (Transfer Stack pointer to X). As with PLA, PLP, PSA and PSR no address is used.

INTERFACING WITH BASIC

PLA has uses in interfacing with BASIC. The basic command which is used to run a machine routine is E=USRADDRESS, Param 1, Param 2, ... Param 127.

The simplest format is: X(USRADDRESS), e.g.

```
E=USRADDRESS
```

which runs a program stored at 1500 (\$0600 - see page 6). When this is done basic first puts the current position E in it into the stack, (see byte 00), so it can return back once the

DISK BONUS

ASSEMBLY

Part 4

routine is finished. Then a byte for the number of parameters is put on the stack (same in this case).

For a fully working machine code program you need to first PLA the number of parameters byte and at the end of the program RTS will return control to Basic.

The other case is where the K4350 has some parameters. In this case as before the current position in Basic is put on the stack. Then the parameters are put on the stack starting with the last parameter and finishing with the first. Each parameter takes up two bytes even if it is less than 255 so the parameter can range from 0 to 65535. The low byte of the parameter is put on the stack first followed by the high byte. Then finally the number of parameters byte is put on the stack.

The order of the above is very important when it comes to using the parameters in a machine code program. Remembering that the most recent addition comes off the stack first things would work out roughly as follows:

```

PLA          : number of parameters
PLA          : high byte of parameter 1
STX PARAM1+1
PLA          : low byte of parameter 1
STX PARAM1
PLA
STX PARAM2+1
PLA
STX PARAM2
etc.
(REST OF PROGRAM)
RTS         : Return control to BASIC
    
```

Remember always to pull off the correct number of bytes from the stack as have been put on or else the program will fail to return to Basic properly.

PROGRAM EXAMPLES

There is one Assembly program this time, however it is nothing new simply an adaptation of the clear RAM program for use in BASIC. It should give you ideas for how to adapt other programs.

There is still one thing! Once you've written and assembled your beautiful machine code program, how do you load it into Basic. You cannot simply "LOAD" the thing in. You can use DMS, however this is cumbersome. The solution is a little Basic program which for writers, it loads your assembled machine code file in and converts it into DATA statements. It produces a subroutine which can then be EMULATED into your program.

One small point I must mention in the program asks you if you want to produce ABSOLUTE or RELOCATABLE code.

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Absolute is where the code is put at a fixed address e.g. Page 0. Relocatable is where the code can be positioned anywhere in memory without affecting its operation. In this case the code is stored in a string and K4350ADDRESSING% occurs the program.

Of course you can't have something for nothing and therefore relocatable programs must follow certain rules. The main of these rules is that no direct reference to the program itself is allowed. So no JMP%JMP% or RTS% returns within the program. Something e.g. RSP etc. is allowed because relative addressing is used. If you look at the "Jaymark Driver" from part 3. You can see a relocatable program and the problems that arise.

That's it for this issue, next time once that'll be going up some more and having a huge table of the 6502 instructions and some programs using DMS. See you then!

INFOCAB

A VOCABULARY READER FOR INFOCOM

Chris Patterson discovers a way to cheat ... sorry ... make Infocom adventures just a little easier to get to grips with

INFOCAB is a neat little program which will read, from an Infocom adventure game disk, all the words which can be used when playing the game. There will be about 700 to 1000 words to mark down. The words can be displayed on screen or printed out on an 80-column printer.

The user should note the following:

- The program has been tested on the following Infocom games: *Curious Lore, Hollywood Hijinx, Misconstrued*. All of these are identified as "Version F" when the "VERIFY" command is entered. If you have problems with this program, then check the version letter. The program may not work with other versions.
- The maximum length of words is 8 letters so some words will be truncated, e.g. EXAMINE appears as EXAMIN and UNSCRIPT as UNSCRI. Some very long words may be difficult to identify at first, e.g. SUPERHEAT appears as SUPER. Remember that, when playing a game, you can abbreviate long words to 8 letters to speed up typing.
- Some words that appear in the list cannot be used by the player in the game. These are the words that have a space in them, e.g. "I LIVE" or "WIND SO". As far as I can tell, these entries are used by the program only and are, therefore, not available to the user.
- To print out on a 80 column printer (e.g. the STARD 1000 printer) change LCToff to line 080 to LCT08.

I hope that this program will help players who are stuck in an Infocom game and who need the appropriate word or words to progress.

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03 3 000 M          MESSAGES          M
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DIGI-STUDIO

If you pipped along to the *Alternative Music* issue last November you will almost certainly have noted the name Digi-Studio. It's the culmination of many months effort on the part of Dean Garraghty, who is among the most ardent of 8-bit supporters. When he's not studying at Aberystwyth University for doing whatever it is that students get up to... Dean provides a variety of support services to fellow enthusiasts including a PD software library and a register disk newsletter known as the *News-Disk*, which cut for a review coming soon in *MAIL*.

In addition he's recently been appointed a US correspondent for the new US magazine *Atari Connection*.

Digi-Studio is a suite of programs that enable you to create and play music using digitized voices. The software has been written using Turbo Basic (since it is only compatible with 68K XL/XE machines) and is supplied on two double-sided disks. The first contains the main program files and the second a wide variety of example tunes and voices. A large printed manual is included to explain the operation of the various components and also to give helpful notes on music notation. The manual is generally well written and laid out, apart from the unfortunate absence of a contents page and index.

When you load up the program disk you're initially presented with a menu of five options. The first choice, *Keyboard Player*, is perhaps the quickest way to sample Digi-Studio's capabilities. The *Keyboard Player* lets you perform music 'live' using your Atari's keys as if they belonged to a synthesizer keyboard. You can load digitized sounds from disk into three memory banks which can then be triggered by a simple key press. By making use of the directory function you'll discover a total of fifty five sounds ranging from *Guitar* and *Trumpet* to *Laughter* and *Pipe!* The keys are touch responsive, meaning they produce sound for as long as you hold them down - though not uninterrupted since the digitized samples are obviously restricted in length. There's no recording facility of the sort you may have seen in some ST sound teachers - perhaps this is planned for a future version?

Tune Player, the next option on the main menu, plays predefined music files using any available sound samples. There are forty-four ready constructed tunes on the disk but you can also compose your own using other components of the software. Load and directory functions are available here and apply to both samples and tunes.

With the *Sample Editor* you can edit Digi-Studio samples to improve on the existing sound or to actually create a new one.



The editor allows you to copy a page of the sample file (it is defined as a set of 50 speakers positioned from one point to another, and also reverse all or specific sections of it. You edit the sample using a joystick to determine the locations of the individual speaker positions. Creating an entire sample in this way would be too time consuming for practical purposes but the copy functions can be used to duplicate a preferred section several times. A graph option displays the current sample waveform in graphics mode.

8-bit format - interesting, though not particularly useful.

The *Digi-Studio Tune Compiler* processes standard Atari Basic code to play predefined tune files stored on disk, which you can incorporate into your own Basic programs. All you do is enter the relevant details, including the file number where you want the tune reader located, and the *Tune Compiler* sets to work creating the Basic listing. Provided Digi-Studio is mentioned in the source you're permitted to distribute the end product complete with the digitized tune files.

The final menu option is also the most complex, *LEDS - or Language for Instructing Digitized Sound* - is a form of programming language especially devised to help you write tunes in the Digi-Studio format. With *LEDS* you can convert short music into a more flow using simple key words like *move* or *in* (variables) which correspond to standard music notation. In order to get the most out of *LEDS*, you will therefore need some idea of how to read music. One section of the manual describes the basic principals though it doesn't claim to be an authoritative tutorial, so further study may be required. A simple test editor is provided for programming purposes though you can use any word processor. Once complete you must use the *LEDS* compiler to convert your code into a playable tune file.

It's obvious that the author has a genuine interest in the subject matter, and that therefore just a great deal of effort into the functionality of the Digi-Studio modules. Certain areas of programming could be improved - there are fairly long delays in places and some checking on keyboard inputs is not always handled in a particularly friendly way - but the proof of the pudding is in the sound, and this can be quite impressive. You are unlikely to use Digi-Studio for serious purposes but if a great fun and educational tool.

Digi-Studio is produced by Dean Garraghty, 82 Fawcett Avenue, Hilly, Daresbury, D94 0SL. The price is £12 and £1 also do for delivery to cover the cost of delivery. Further details of Digi-Studio and other products are available on request.

RENOVATE IT!

I bought my first computer so I could play games. Consequently, I didn't get much out of the magazines I subscribed to but in the years passed a subtle transformation took place. Not only did I begin using my computer for practical purposes, I also found myself tinkering with programs, even though I had absolutely no previous programming experience. One day I realized something quite amazing - programming itself is a form of play. I was hooked.

Suddenly the back issues of computer magazines became a valuable resource, and peering through them emerged as a favorite activity. Since my computer skills are continually evolving, I always find something of interest.

Here are a couple of programs that grew out of my rummaging.

CUSTOM CURSOR KIT

In the November 1984 issue of *BYTE* there's a program called "Create Your Own Cursor" by Jerry White. When I first came across it, it filled me with enthusiasm. Now I could redesign a cursor in any shape or colour I wanted. All I had to do was change the data numbers in a certain list. Had? Change them to what? The article didn't say, and I went away grumbling.

Sometime later I came across another little program that caught my interest, "Joystick Cursor" by Ted Blackwell appeared in the May 1986 issue of *BYTE*. It transferred cursor control to a joystick.

By this time my computing skills had improved somewhat, so I began fiddling around with both programs, and finally managed to hitch them together. (See Listing 1.) Then I packed out

128	64	32	16	8	4	2	1	Total
0	0	0	0	X	X	0	0	12
0	0	0	X	X	0	0	0	24
0	0	X	X	0	0	0	0	48
0	X	X	0	0	0	0	0	96
0	0	X	X	0	0	0	0	48
0	0	X	0	0	0	0	0	32
0	X	0	0	0	0	0	0	64
X	0	0	0	0	0	0	0	128

Can't write your own programs from scratch? Well, there's just as much fun to be had by tinkering with other peoples, as Ed Hall has found out

the secret of the mysterious data statements.

Jerry White's cursor is actually a player, which is designed as an 8 x 8 grid. The illustration shows how to arrive at the 8 numbers listed vertically) needed for a lightning bolt cursor.

Eight numbers are required, and some may exceed a value of 248. Enter 0 for a blank row.

After figuring this out, I celebrated with an orgy of shape-drooping. Here's what I came up with.

PACMAN: 20,62,114,124,126,128,80,80

TIE-FIGHTER: 0,69,71,85,127,85,73,65

INSECT: 96,96,34,136,130,96,96,128

BULLDOZER: 0,64,64,122,2,122,128,121

HAND: 80,90,28,29,34,111,99,40

COILED ARROW: 62,34,42,42,42,174,294,240

CROOKED ARROW: 240,182,180,144,144,18,16,16

INVERT SYMBOL: 0,128,64,32,32,64,128,0

MAGNETOSCOPE-STYLE I-BEAM:

100,94,84,84,94,94,84,100

HORIZONTAL LINES: 0,248,0,248,0,248,0,248

HOLLOW SQUARE: 240,144,144,144,144,144,144,240

UNDERLINE: 0,0,0,0,0,0,0,0

Cursor shape data numbers go to line 650. Cursor blinking rate (BATE) is fixed to line 608. Enter a zero if you don't want the cursor to blink. For cursor colour (COL) (0-15), enter any

INVADERS

This issue we have an example of developing text and display subroutines, produced by the POST AND DIS PLAY DATA CREATOR, into a game.

MACHINE CODE ROUTINES

There are three machine code routines used by the program that you may find very useful for games programming.

ROUTINE 1 - A sprite mover handling all animation, movement (including joystick control) and collision detection.

ROUTINE 2 - A missile mover including optional trigger setting, movement and collision detection.

ROUTINE 3 - A sound effect routine, allowing up to four table-driven sound effects to be played independently from everything else (they do not slow the program down).

These are quite complicated to use, so I have written a smaller game that explains the routines much better, and this will be the final listing next issue.

HOW TO PLAY INVADERS

After the rather lengthy initializing has finished you will be presented with a title screen, then to start press the joystick trigger. After the alien has landed the main display will appear and your spaceship will emerge from its hangar.

The idea is to protect the planet's shield from invading alien forces by blasting them with your laser. Every time you hit them for the shield a bit of it disappears allowing further alien forces to get through. The shield also weakens when the aliens reach the surface. An alien saucer constantly crosses the top

Steve Lakey's Font and Display Editor is now used to create a fully playable game which can be played even if you are not interested in the programming side of things

of the display and although killing it is difficult, it can be done. Should the shield become too unstable you will lose a life. Although you may be lucky, a collision with an alien or its explosion will kill you. You start the game with one life and get an extra life every 20000 points. You lose points when the shield weakens and should the points drop below a 20000 point boundary, you will lose that extra life. If you lose a life the level has to be replayed.

There are five types of alien, each with its own movement pattern. A new alien appears on each of the first five levels.

SCORING

50 x LEVEL	Shooting An Alien
-50 x LEVEL	An Alien Hitting The Shield Or Reaching The Surface
120 Points	For Every Shield Section Left Intact At The End Of Each Level
2000 Points	Hitting The Saucer

TECHNIQUES USED

To animate the billboard a selection of different characters were plotted to the screen, whilst in open and close the hangar, data was stored directly into the character set. Sadly the listing is not nearly how it was done.

In the final part of this article, to be presented next issue, there will be one more listing which will explain the machine code routines mentioned above. There are total fifteenable and open one in the vertical blank interval making animation very smooth, if you have ever wanted to program your own commercial quality games look out for it!

THE LISTING

Invaders is another mammoth listing that would take up five pages in the magazine so we have decided to include the program only on this issue's disk where you will find it ready to run. We regret that a cassette version will not be available but we are quite happy to send a photocopy of the full listing, with TYP0 codes, for anyone to type in if they wish. Send a large stamped addressed envelope to PAGE 6, P.O. Box 64, Stafford, ST16 6DB and ask for the INVADERS listing.

WHAT 'AVE WE 'ERE?

You may think, as many people do, that as the 8-bit is a relatively old professed computer, you are alone and without any help. Mistake! Just take a look at the people involved in this magazine from all around the world. Look at the British, German, Australian, US teams and support teams around the world for our magazine. You may think that I only look around the world because I write from FRANCE where you never heard about any 8-bit machines. False!

Here, in France, the 480 appeared in the beginning of the 80s and was followed by further models of the XL/500 line several years later. There were also many magazines and publications supporting the Atari 8-bit machines in my country. First, there was "L'AMBIENT" which began publication in October 1980 firstly with VCS 2600-dedicated articles for the first three issues and finished in February 1986 after 10 issues. This was a magazine edited by ATARI FRANCE and was of good quality with articles, programs and reviews of games and software. Then there was "POSSY" from July 1986 to August 1987 with full reviewed pages all about the ATARI 8-bit machines, offering bargains on software and hardware. These magazines were very well produced with good programs and original articles, but were difficult to find over here in France. Unfortunately, their publications stopped due to lack of buyers and supporters. There was also was a much bigger publication called "TELE" which, the same as the English Computer and Video Game mag which followed the 8-bit until 1989. This mag still lives but with articles on ST, PC, and Amiga.

However, there is here a group of people continuing the support for the XL/500 issue of them via the French telecom computer system called MENTEL) who think that the Atari is still the best computer. To convince people that they are owning the very best computer I have just one question. What other computer has more than 4,000 programs including big games like PAC-MAN, DONKEY KONG, GALAXIAN, VAN-GUARD, MISSILE COMMAND, POLE POSITION, FUNKO, JUMP, CENTIPED and so on plus software for the more serious users all with great music and 256-colours, a light gun, cartridges, tapes, disks, touch tablet, light pencil, laboratory interface and hardware enhancement?

HARD TO FIND SOFTWARE, RUMOURS AND CONVERSIONS

I would say that I have a rather good experience in gaming on the Atari 8-bit computers (after 10 years of joyful manipulation) and as I have tried hundreds of programs for our little machines but I am always searching for some big titles that I have only heard about.

The Atari Classic is alive and well in France where Patrice Robert has discovered alternative software titles

Have you ever seen a big fat sniffer machine sniffing it could be available on the SL/500? I have, as every player probably has in the computer world. Have you ever been told about great titles on the Atari 8-bit that you never saw? I also have and, occasionally, I have seen some of them. To help you get more enjoyment and ease the desperation in searching for the obscure titles, I will share my own experience on the long, hard road of finding software for the SL/500.

First, a game I have always been looking for is **PROBIE** but it didn't appear for our computer whereas it did on the VCS 2600 and the 5200. ATARI could have done a SL version if you are waiting for a similar game, have a look at **DIMENSION ATTACK** from Image or **BATAN'S BOWLOW** from CBS.

Another great hopeless search is about **GALAXIA** which doesn't exist either on the 8-bit line, whereas it did on the 2600 video game system (I suggest that you look out for an article on the 2600 and its games. I am working on it). The nearest adaptation of this game would be **GALAXIAN, A.E. or GALACTIC CHASE** from respectively Atari, Boulderball and France, but you will have a nice surprise if you dare have a look at **BANDITS-1982** from Sigma which is fast (not as fast as A.E. very well released and varied).

On the car racing game side, I have always appreciated **ENDURO** on the VCS 2600 which doesn't have the same feeling of driving as **ROAD RACE**, both from Activision, although this last one is a very good one for the XL. In another type of action, I really enjoyed **TAR'S REVENGE** and **IRON-CHEER'S APPRENTICE** also on the VCS (the way the last started with war) which has a very original concept, as has **ACTION FORCE** from Parker, but I never saw an adaptation of these games on the 8-bit.

On the opposite side, there were great titles which were supposed to exist on the Atari classic but which seem to have never been released. I speak of titles such as **LITTLE COMPUTER PEOPLE** from Activision, **SEYFOX** from Electronic Arts, **SUMMER GAMES 2** and **WINTER GAMES** from Ego. I saw an advertisement in 1986 about LCP and SC2 in TELE magazine mentioned above being sold by a French shop called ELECTREON at a really high price 1990 frs - 4000 but never saw them. All I know about LCP is...

that I have a clone version of the game but without any computer people in the house. I also saw a picture of Winter games working with a 555K at the '87 London Atari show reviewed in the **PURE!** magazine of that year. Has anybody heard of these games or ones then running on the XL?

There's also those big fat cartridges that were supposed to be produced for our machine. I talk of **COMMANDO** (for that I'll refer to the game that I got at the '88 French Atari show on which **COMMANDO** was even referred to under the KC 80884 reference), **MEAN 18**, **EPIC/EPIC/MEAN MAKE** and **TOWER TOPPLER** about which I saw pictures and comments on an American review called **THE STARLIN** in 1989 (Vol. 1 no.2) but never played with. These including **MEAN MAKE** could have a glance at **WAT OUT** from Siles which was produced in 1982 and has a similar scenario.

At this point of the discussion, I have been surprised by a typical fact in our 8-bit world, which is that some titles like **ALBY BRIGADE**, **POLE POSITION II**, **COMMANDO**, **ISLAND WARRIORS** and **NINJA GOLF** are available for the 2800 but not the XL/505 when this video game system has very similar graphic modes and sound capabilities to the XL/505 level. There is no reason why Atari could not have produced these games for the Atari Classic.

DON'T GIVE UP ... MOST OF WHAT YOU WANT REALLY DOES EXIST !!!

Some of my friends have dropped their XL/505 just because they couldn't have big hits, but they didn't search enough and were badly informed. I realized that after having discovered that big games were sometimes adapted on the XL with another name. The resulting discoveries were well worthwhile. Let's take examples. I wanted **MARBLE MADNESS** on the XL and found it under the name of **FRIDGE!** from American software. **TARZAN** also exists on the XL/505 from Colco and has everything comparing to the Colco cartridge of 1984. I also got **CRASHBOW** at D & C Computerware in the US after a good search but it was worth it, believe me!

If, like me, you have been searching for some old hits adapted from the VCS to the XL, you could find **DOOMED!**, a new racing game where you must avoid other cars in a labyrinth converted as **DOING RACER** on our 8-bit machine from Synapse in 1985. **CARNIVAL**, the big arcade hit from Colco, is also available for Atari XL under the name of **SHOOTING ARCADE** from Dataeast in 1982, with the same moving shooting targets and the scoring level being going left and right. **AMIBUS** from Parker has also been adapted to XL by Funsoft in 1982 under the **TIME RUNNER** title, with three squares to go round in order to fill them with colour while avoiding enemies. The last example of this kind of adaptations from the vintage game system is **STAMPEDE** from Activision which is called **ROUND UP** on our computer, with the similar running horses at different speeds and the cowboy with his lasso.

Patrice Robert
with
The French Connection

MISINFORMATION CAUSES PROBLEMS!

On the opposite side, there is sometimes disappointment with the name of some games. For example, when I got the game called **TIME BASTET**, I thought it was the historical one initially developed for the NT, but discovered instead a Scramble-type game (which is, nevertheless, a very good adaptation).

A typical example of misinformation is also due to the lack of distribution of our software. Some people don't even know that **VANGUARD**, **KANGAROO BUCKERS**, **STARGATE**, **SPACE DUNGEON** and **GARMELEN** from Atari were available on our machine and of top quality. We have to admit that there hasn't been a lot of effort from some software houses on this point. For example, a lot of people would have enjoyed playing a two player racing game like **HIGHWAY DEED**. Electronic Marketing (EMM), 19844 which clones the screen in two parts and allows each car to be controlled independently through the keys where you must follow the road direction, avoid other cars and respect the traffic lights along the horizontal scrolling. If only it had been well-distributed! I got the XL version of this game from Comshare.

It has been the same difficult way with getting **SCHNEIDERSTEIN** (1980) from Aste/Arbitrati. This time, which offers a large scrolling playfield in a castle with ghosts, spiders and magnificent sampled sound effects. This is a really top-quality game for the XL/505. I am not surprised by the quality level of the games produced by the German K+S-Soft house. And **SPY-LENDING!** did you play this game? If you already have, you haven't forgotten this formidable covert type game. **MARCO** (larger than released in 1983) with the moving elevator introducing the mirror into this huge multi-directional scrolling playfield filled with dozens of different aliens. And did you ever heard of **EXOS** (1985) from Westwood where you have a moving ball trying to collect letters and shooting other enemy balls?

PAC-MAN AS AN EXAMPLE OF MISINFORMATION

Most of you know, or think you know, the **PAC-MAN** games. I mean the real ones, not adaptations made by another house from Atari and would speak not only of the classical **PAC-MAN** but also of **NEW PAC-MAN**, **PAC-MAN JUNIOR** and **SLIPPER PAC-MAN**. However, there have been two versions of the classic **PAC-MAN** from Atari. The first one appeared on cartridge, allowing the player to select the starting level and the number of players. Always in this version, the pac-man search movement is very fast and the sound made when the ghosts eat a super pill is like digitalized. On higher levels (level), these super pills have no more effect on ghosts. The second version appeared on disk but the game has a better presentation with the introduction of the four ghosts and their names but most important is the alternation between levels, as in **NEW PAC-MAN**. This version, however, doesn't give the possibility to select the starting level of the game at high levels, the super pills will have power every 3 or 4 levels. These differences are due to the necessary size of the selected version. It is the same problem (as it) with **MONTESUMA'S RE-**

continued ➤

WHAT 'AVE WE 'ERE?

continued ...

VENGE or **BALCON** which appeared in a 10th or 12th version (and even in 4th, for Zaxxon). Speaking about 'MONEY' makes me wonder if anybody has ever seen the several episodes of this game on XL, which was supposed to be **BARRACON** (**BOOBY** or what should have been the next adventure of B.C.'s **QUEST** heroes under the name of B.C. **CROSS REVENGE**!) even now either of them.

ADVENTURE'S ATTRACTION

On the adventure game side, I find most an-freakin'g (unless you appreciate text adventures), so I was not attracted by these kind of games until I played with **MAKS OF THE SUN** and **KEEPER'S WEAIR** from Grandhouse or with **MEGASLAWD** from Activision. All those include graphic animations and sound effects, which give interestingly to those type of games. Well, the difference would be apparent when comparing a game like **DOOM** with **THE NEVERENDING STORY** from Delano. Both are worth interest, but I didn't know what beginning on the 8-bit that these types of adventures existed on the Atari. That's why I would criticize these software publishers who disseminated such a big computer as the Atari 8-bit just by ignorance or lack of information about software.

I have learned one thing about my computer which is that when I am searching for specific software I have to ask and collect all the information before going in, but I have had a lot of good surprises!

MAKE A SOFTWARE WISH !

There is a piece of software I would like to see on the XL/XE which I can't see on a Macintosh. It is a software speech synthesizer with a head on the screen who moves his mouth and eyes at every word pronounced. I would compare it to a combination of **MOVIE MAKER** and **S.A.M. Software Statement** Monthly.

Well, you may think I am crazy to quote such a game that I would like to see on my computer screen, but after having ordered and seen the **BBC DEMO** from **IMACS**, I have thought that anything (almost) could be possible! Programmers, it's up to you! Make us a speaking and moving head, even if it's a dummy. Give it just a try as I did!

Well I hope that you have enjoyed reading of my experiences in discovering an almost unknown world of software for our Atari. Perhaps, one day, I can read about your experiences?

If somebody is interested in a project such as the talking head or wants to speak to the French Atari 8-bit fever, you can contact me on write in:

Patrick ROBERT (Robert being my family name), 7 Bd Mareil Parisiens, 92000 Noisy Malmahison, FRANCE

NUMCON

*A no frills number
conversion utility by Paul
Saunders that almost
everyone will find a use for*

Many years ago when I was at school, we used to have to convert a lot of numbers from different bases and do simple arithmetic with them. After a while I wrote a program to do the conversions leaving just the arithmetic to cope with. NUMCON will convert to and from decimal to any base up to 36 and I have expanded it to cope with many other conversions. It will now also do area, weight, volume and temperature conversions making it, I hope, a useful utility to have.

The program is written entirely in Basic and uses a no frills graphics 0 screen throughout. It is menu driven and is simple to use.

CONVERSIONS INCLUDED

NUMBERS

DECIMAL TO BINARY
BINARY TO DECIMAL
BASE (2-16) TO DECIMAL
DECIMAL TO BASE (2-16)

TEMPERATURE

CELSIUS TO FAHRENHEIT
FAHRENHEIT TO CELSIUS
CELSIUS TO KELVIN
KELVIN TO CELSIUS

VOLUME

LITRE TO GALLON
GALLON TO LITRE
PINT TO MILLILITRE
MILLILITRE TO PINT

WEIGHT

TON TO TONNE
TONNE TO TON
POUND TO KILOGRAM
OUNCE TO GRAM
GRAM TO OUNCE
GRAM TO POUND
POUND TO GRAM

LENGTH

MILE TO KILOMETRE
KILOMETRE TO MILE
YARD TO METRE
METRE TO YARD
MILLIMETRE TO INCH
INCH TO MILLIMETRE

PROGRAM EDITING SCREEN

SCREEN

The main use that I have for my computer is for writing programs. The Atari's default screen of light blue text on a darker blue background can cause eye strain and after hours of looking at the screen I find that it is very easy to lose track of the cursor.

To remedy this I have written Program Editing Screen to customise the default parameters for my own particular likes and dislikes. I find that this is a very useful utility and I think that it could also be helpful to other programmers. The original program is in Assembly, but I have designed it in such a way that it can be altered to suit individual tastes through a BASIC customiser program.

PROGRAM EDITING SCREEN CUSTOMISER

When you run the PESM program a file buffer is set up which contains the entire code for the boot file. The screen then displays a list of my custom default values as shown below:

DESCRIPTION	DEFAULT
Device	ASCII of device name 00
Text margins	Screen range
Left	0-20 1
Right	0-20 20
Status line	Colour range
Text luminance	0-255 8
Screen colour	0-255 140
Header colour	0-255 140
Key repeat	0 or 1 1
Keyboard click	On/Off, 1 or 0 1
Text screen	Colour range
Text luminance	0-255 1
Screen colour	0-255 6
Reserved area	Must be >41100
Low byte	0
High byte	25
Cursor speed	Range 0-255 35

If you accept these values, you can go straight ahead and create the autorun file. If you want to change any, move the indicator on the left hand side of the screen using the up/down cursor keys until it is pointing at the value that you want to alter. Then type the new value and press the Return key. If this value is acceptable, i.e. <=255, the relevant byte in the file buffer is replaced; if the value is not acceptable, i.e. >255, the relevant byte in the file buffer is unchanged and redisplayed.

David Sargeant provides a programming screen which you can customise to suit your own preferences

The boot file is loaded between addresses \$1000 and \$1FFF so the reserved area must be >41100 to protect this code from BASIC. I have set the reserved area to \$0900 but you could set it higher to reserve video space.

THE PES BOOT FILE

To create the 'AUTORUN.ROM' file put your boot disk in the disk drive and press the Escape key. The code stored in the buffer is then written to the boot file. Remember that an existing 'AUTORUN.ROM' file will be overwritten, so back it up first if you do not want to lose it.

Now, when you boot your system using this boot disk, you can access PES whenever you want to write, edit or just view a program.

ACCESSING PES

PES is accessed by typing in direct mode, OPEN:rom,x,y,"A" where:

```
rom any channel number, 1-8
x,y not used, usually 1's
A = rom device
```

To return to the normal Atari default screen type CLOSE:rom,x,y.

For example:

```
OPEN:1,0,0,"A" and CLOSE:1
```

Note that the system will probably crash when returning from DOS.

DISKBASE 1.0

Charles A Cole checks out a public domain database that proves more than a match for commercial offerings

Throughout the life of the Atari 8-bit computer line, many individuals and companies have released database programs. I must have close to fifty different ones that have been written over the years, and I know there must be hundreds more that I don't have. Most of these programs are dedicated to one specific task, such as maintaining a club library, name and address file, telephone directory, or some work purpose; or they have a very limited storage capacity of less than 500 records. In the realm of free-form databases, which allow the user to customize the data structure to their own needs, three stand out as the most useful: Synbase+ from Synapse software released in 1983; Data Perfect from L&L Enterprises, released in 1984; and Diskbase 1.0 by Todd Blake of St. Clair Shores, Michigan, released in 1988.

What's that? You never heard of Diskbase? Probably because it is public domain, and was never sold in stores. Synbase+ and Data Perfect are still available from a few bait-and-switches in the States but were rather expensive when first released and are getting harder and harder to obtain. Diskbase is Public Domain.

PRIOR DATABASE EXPERIENCES

In my particular case, I began with Data Perfect which, even today, is one of the most powerful database programs ever written for the Atari 8-bit line. It is no overstatement, in fact, that just working your way through the instruction manual is a major project in itself! Data Perfect was way ahead of its time, offering colour screens, 80 columns displays, and support of double density drives where most of us were still plugging along with 40ks and 80ks and 840 single density disk drives. As my disk library grew and I needed greater and greater storage capacity, I switched to Synbase+ after acquiring an Atari 10MB and 20MB drive, because it used all of the 10MB's RAM for the index storage, and a single file could be split across up to 16 disks.

Both of these programs suffer from the same problem, though—they won't write to a double-sided drive! There, along came

Diskbase, a public domain release from Todd Blake written in the Action language for speed but not requiring the cartridge to run. Diskbase's greatest asset, for my particular use, is the ability to run it from a hard-drive with the Spantation 2 cartridge because it is not a copy protected disk as are Data Perfect and Synbase+, and the ability to store your data files on a hard drive or a double-sided, double density disk! Another strong point that Diskbase has going for it is the ability to use a word processor to key in your data, and then let the Diskbase program read your word processor file into its database structure.

MEMORY REQUIREMENTS

Despite its name, Diskbase is not another one of those "Disk Index Only" databases, but is a true free-form database that can be used for a variety of purposes similar to the MS-DOS world's database programs. According to the documentation provided by Mr. Blake, Diskbase is designed to run on any Atari 8-bit computer with at least 40k memory, and with any DOS with a MEMLO of \$1100 or less. Atari DOS 2.0 and 2.5, DOS XL and Spantation are specifically recommended. I haven't tried it with MyDOS 4.50 and it may not be compatible with a MyDOS's documentation indicates a MEMLO of \$1100 which may not be sufficient for Diskbase.

CAPACITY

What really sets Diskbase apart from any other database is its storage capacity—up to 85,536 records! Diskbase gains its large storage capacity by virtue of the fact that only the index and file pointer bytes are loaded into memory to perform data access. For those who may need a better database than what they are now using, let's run through Diskbase's main features item by item.

FUNCTIONS

All of Diskbase's functions are selected from a main menu consisting of nine items, plus two that do not show on the screen. Unlabeled items are the F1 key to toggle menu freely on and off and the F2 key to see how much free memory is left. Free memory only determines how many records can be sorted, however, and has nothing to do with actual storage capacity.

DOS FUNCTIONS from the main menu allows all the usual disk management procedures such as formatting etc. Two that

are different with Diskbase, however, are Copy Records and Write Structure.

DISKBASE uses absolute sector/byte pointers, which means that you should not use your DOS's copy function to duplicate a data disk because that will helplessly scramble your file. The Diskbase Copy Records module will copy them without scrambling, but you do need two drives or a ramdisk, because disk switching is not supported. The good news is that users of SpartaDOS can copy data files with the DOS's Copy function with no problems, since it retains absolute sector/byte locations.

The Write Structure choice of Diskbase allows you to copy a database's field names, long file, etc. to a new disk without copying the actual data, and is used to begin a new file with the same structure as an old one. This is particularly handy when you suddenly run out of disk space and need to extend a file onto another disk.

OPEN FILE is used to create a new file or to open an existing file for changes or additions. You will be prompted for a file name and, if it is not found, Diskbase assumes that you want to create it and switches to the New File option. Diskbase will ask for the number of fields (data elements) you want to create, and the field name length. The next screen is where you design your new file's data entry routine. If your data file is to have more fields than can fit on one screen, the screen will scroll vertically to allow additional entries. If a particular field is defined as being longer than 40 characters, the screen will scroll horizontally to allow the entry of data. You do need to plan ahead for hard copy printers, however, and not use more than 80 columns of data per individual record if you think you will want to print horizontal hard copy.

USING DISKBASE

My primary usage of Diskbase is to maintain my disk file index. I created a file structure that allows 4 characters for a disk number, 14 characters for the program title, 20 for a file description, 7 for the source ID, 4 for the date of release or acquisition and 3 for the type of DOS used. With an 80-column printer, that still leaves 20 spaces to divide between the columns during printing. **Keyfiles** and **Data Perfor** allow flexible formatting of printers but **Diskbase** automatically justifies the printer against the left and right margins, plus a four-digit file number counter in the left column, and then divides the remaining spaces evenly to separate the columns. Once you have your data entry screen designed and in **Escape**, your file structure will be written to disk, and you will be returned to the main menu.

ALTER RECORD allows you to change the name of previously created data fields within an existing file, but you cannot change their length.

CHANGE RECORDS is where you go to add records to a data file or to make changes to an entry. When you enter this screen, the first file in the database will be displayed along with the current record number and the total number of records. A one-line menu across the bottom of the screen allows you to jump to a particular record number, to the end of the file, to the next or previous record, back to the first record or to search for a particular string of characters in any of the fields. To add records, you must first go to the end of the file. Previously entered data can be changed as desired throughout the entire file, and a search option is available to help you locate data that needs to be changed. Records can be deleted from the file while in this mode. Deleted records cannot be retrieved, so the program asks you if you are really sure before it deletes the record, and gives you an opportunity to change your mind.

READ RECORDS is one of Diskbase's most useful features.

Although data entry from within Diskbase itself is fast and easy I prefer to use **Starburst Plus** or **TextPro** and then let Diskbase **READ** the text file into its own structure. This allows me to keep the original text file as a backup in case anything happens to my Diskbase file.

PRINT RECORDS allows you to output data to a printer, disk file, or the screen in three different formats. You can print all or just certain fields of all or just certain records. If you choose printer output, you can give the option of entering a printer control string to set up print jobs, margins, line type etc. depending on your printer's capabilities.

I have previously mentioned what seems to be a bug in this routine. I have an Epson LQ-860 programmable printer which can have its page length set through software commands but for some reason it refuses to accept this command when it is sent from within the Diskbase printer control string.

I like to have my printers with a break between pages, but Diskbase's default is to print the entire file without any page breaks at all. If you don't have your paper set exactly right, it will print in the middle of the perforations. Single sheet printing is not supported.

The two formats offered for both printer and disk file output are **Regular Format**, to print the records as they appear on the screen, **Horizontal**, to print one record per line in columns across the page, and **Data Only**, which is the opposite of **Read Records**. The **Data Only** option prints an ASCII text file to disk that can be updated with any word processor, and then read back into a Diskbase file. Diskbase also gives you the option of printing only certain fields or all of them and complex conditional expressions can be entered to filter out unwanted data.

SAVE allows data to be written on any field in either ascending (A-Z) or descending (Z-A) order. Diskbase uses three bytes for each record in the file, and the max buffer is limited to around 8K, which means that Diskbase can not do a file of approximately 2,000 records. Data do not move the data on the disk, but merely rewire the sector and file pointers. Even so, the writing of a large database on a floppy drive can require a considerable period of time. The use of a **RAMdisk** to perform some is highly advisable, provided the file to be sorted can fit within it.

I have my disk index on a hard drive, broken down into two separate files of 2,400 and 2,200 records each (A-L) and (M-Z) and even all hard drive read/write speeds, sorting one of these files takes over 20 minutes. On **Expans**, this would probably require a couple of hours, and your drive would be smoking! Writing during the write wait operation **When I was maintaining my files on floppy**, this caused my **SPMS** to overheat.

Something I found to be very helpful in the long run is the **Following**. After you sort a file, use the **Print to Disk** option to write the data to disk. It will be written in alphabetical (sorted) order. Delete your old data file, and read the data back into Diskbase from the copy you printed to disk. Now the file will be on your main disk in sorted order, and subsequent sorts will go much faster. Perforations will be fewer too, because the disk drive can find the files much quicker if they appear in sorted order. This also saves space and wear on the mechanical parts of your drive's read/write head.

LEAVING DISKBASE

Any time you are ready to leave a file, cancel a command, or move to another operation, pressing **Escape** closes the file and returns you to the main menu. **Home** lets you only read complaints about Diskbase, although even this is minor. There is no **EXIT** command to return to DOS from the main menu. Even if you select the **DOS FUNCTIONS**, exiting from the program is not possible. The only way out is to turn off your power switch and reboot. But, considering the other features Diskbase offers, I can't live with that!

TUTORIAL
TIMESTRINGS
TO PRINT

This article was inspired by an enquiry from a reader who was having trouble with a program where he tried to print what he was doing. The program was quite complex and used tabs to format data on the printed page - this did not work correctly on my correspondent's Atari printer. I was not able to solve the problem in that case as I do not have an Atari printer. But it was clear that the major program was using spaces responsibly instead of tabs and blank spacing. In general I would suggest that it is wrong to use codes that are specific to a printer if this can be avoided, although the Epson standard is widely accepted amongst dot matrix printers there are some that do not comply and the newer Laser and Inkjet printers often use a very different set of codes - so do some older types like daisy wheel printers.

I have used strings for two purposes in the programs that follow, first to construct a line of text that can be sent to the screen or a printer maintaining neat columns and second to take numbers and format them so that they are printed in the correct position in the line. There are two program listings. The first is a very basic program which concentrates on showing you how the strings are manipulated, but it is a "wacky" program which can easily be changed as there is no checking on the inputs. I will describe this program in detail and leave you to work out what I have done to crash proof it and convert it into the second, more robust program.

PROGRAM DETAILS

First let me explain that I have chosen to generate a line that contains the following three components for demonstration purposes:

Date	Remarks	Amount (pounds)
------	---------	-----------------

First to **line 20** we dimension the variables that will be used in the program.

Line 30 uses a trick of Atari string handling to make certain that the string LINE\$ is filled with blanks. This technique can be used to fill any string with any character. What you have to do is to make the first and last characters of the string equal to the character you want to fill it with and then use a statement

in the form STR\$(STRING\$-STRING\$) - this fills the whole string with the same character.

Line 40 starts the input of the date. Dates are always a bit difficult as people use widely different conventions such as 15 January 1993, 15-01-93, 05/05/93, Jan 15 1993 and in America the month comes first 01-15-94. To accommodate all these variations would take a sizeable program so I have chosen the form 05-01-93 and, by asking for each part of the date separately, hope that clear prompts will encourage the user to get the input right.

Line 50 prompts for the day input which actually occurs to line 60. The semi-colon at the end of line 50 ensures that the ? prompt for the INPUT is at the end of the prompt rather than on the next line.

Lines 70 and 80 turn the input into part of the string LINE\$. This is the string which will hold the whole line of text for printing. The STR\$ function takes a number and turns it into a string. There is a problem because even if you type in 07, X will be equal to 7 and STR\$(X) will be "7". To ensure that all dates line up a zero has to be attached to the first when the date is 9 or less this is done in line 70 but not when it is 10 or more (line 80). Also if you type in 7 234 or some such for X, STR\$(X) will be "7.234" which would spoil the date format. See how to avoid this in the second program.

Lines 90 to 120 do the same for the month as 00 to 99 did for the day and lines 130 to 160 do the same for the year.

Lines 170 to 200 prompt for a test string TEST\$ and moved it to the correct position in LINE\$. This shows how easy it is to embed one string in another.

In **lines 210 and 230** the program gets a number input and then line 230 branches to the subroutine at line 500. I will come back to this subroutine in a moment.

Line 240 attaches the string generated by the subroutine onto the main string LINE\$ in a position at the end which ensures the decimal points line up. Then line 260 prints the whole string LINE\$ on the screen.

The subroutine starting at line 500 is important as it demonstrates a technique for setting up numbers in position in a string so that they are decimal aligned. The program works for any number less than 10,000 and handles two decimal places - this is suitable for an amount of money as most currencies use up to two decimal places as its pence and penny or dollars and cents. This wide range of numbers can include entries such as 0.26, 126, 78.32 or 9999.99 and all must be handled correctly. This is how it is done.

In **line 580** the normal input (X) is multiplied by 100. This puts the "pence" in front of the decimal point.

Next in **line 590** we add 0.5 of a penny and take the integer value of the result. The effect of this is to round off any decimal parts of a penny to the nearest penny. It's exact half penny rounds up.

In **line 600** a string NUM\$ is created from the number X and the variable L is set equal to the length of this string.

Line 620 is where the last two digits are taken into a new string PENSE - this is the pence. Note that by using strings in this way we ensure that PENSE will be "00" if the original X was

```

001 000 *****
002 000 *****
003 000 *****
004 000 *****
005 000 *****
006 000 *****
007 000 *****
008 000 *****
009 000 *****
010 000 *****
011 000 *****
012 000 *****
013 000 *****
014 000 *****
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016 000 *****
017 000 *****
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028 000 *****
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031 000 *****
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091 000 *****
092 000 *****
093 000 *****
094 000 *****
095 000 *****
096 000 *****
097 000 *****
098 000 *****
099 000 *****
100 000 *****

```

a whole number (pounds).

All that remains is to insert a decimal point in ROMM and reattach the PEEN after the decimal point. This is done in line 040.

THE SECOND PROGRAM

The second listing is an amplified version of the first. It allows selection of a 30 character screen line or a 70 character line on a printer, and it also tries to put in a degree of error prevention. The error checking will generally stop the program from crashing, but it is not infallible - you can, if you wish enter a date of 99-99-9999.

FINALLY

It should be possible for you to set out almost any combination of date, text and numbers in a line to suit your own purposes using the techniques shown above. One versatile method of using the techniques could be to read data from data statements and format them for output in a tabular form on a printer. This would be more practical than taking each entry from the keyboard as I have done for demonstration

```

001 000 *****
002 000 *****
003 000 *****
004 000 *****
005 000 *****
006 000 *****
007 000 *****
008 000 *****
009 000 *****
010 000 *****
011 000 *****
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091 000 *****
092 000 *****
093 000 *****
094 000 *****
095 000 *****
096 000 *****
097 000 *****
098 000 *****
099 000 *****
100 000 *****

```

purposes.

One tip for any of you who have a printer which supports proportionally spaced fonts - where laying out material in a tabular manner always use a fixed pitch font such as Courier. In proportional fonts the widths of different letters vary and this will disrupt the alignment of your columns.

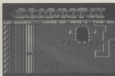
Most basic handlers though behave differently from many other forms of basic but it is capable of all your string manipulation requirements and has the advantage of handling very long strings indeed (up to the size of the spare memory in your computer).

ENIGMATIX

Another brand new game! Enigmatix, from Lucasfilm's Stephen Park, has just been released by Page 6 Publishing. Page 6 are renowned for being more than a little funny over the standard of products they adopt, so the verdict of this review is not going to come as much of a surprise.

Enigmatix is a multi-level scrolling platform game with a welcome element of originality. On each level the player's objective is to guide a small hovering ball to a termination point which is marked by a large variable 'X' symbol. The strength of however is in

creased if you hold down the joystick trigger and decreased when you release it, while sideways movement corresponds to the relevant stick direction. Elements abound on the route to freedom, such as large fire pits and discharging blasters. As you slip across the platform you can pick up bonus points by touching one 'P' symbols (the bigger the bonus, the bigger the bonus) and also obtain keys, which are essential on some levels to establish a path to the exit. There are lots of other intriguing features - bonus-operated lifts, reverse controls and turbo-boosts (which increase but there - but these are left for you to discover. As if things weren't tricky enough you must also keep an eye on the (unconquering timer)! Points are awarded for the time remaining upon completion of each level.



Visually, the game is a neat demonstration of the Atari's capabilities. The backgrounds are clear and detailed and there are some great special effects such as a rainbow-coloured, swirling 'Enigmatix' logo. Animation of the hovering ball itself is smooth and realistic, leading to an overall feeling of responsiveness and playability. The latter is further enhanced by a sensible provision of start-up options - one or two player modes using one or two joysticks, and a handy save game feature. If you master any the levels provided for if

you find them too hard) you can load up a screen designer and create your own of your own. The screen designer and save game functions are loaded separately from disk when selected from the main menu - which, incidentally, is accompanied by an excellent soundtrack.

Enigmatix is a very competent game indeed and I do hope the response from users will be suitably encouraging. I'd like to see a lot more games from Stephen Park, especially if they're all as good as this one!

Title: ENIGMATIX
Author: Stephen Park
Publisher: Page 6 Software
Price: £1.95 disk only
Play: 1 or 2

Reviewed by Paul Dixon



EUREKA!

Eureka - I think I've worked out what this game is about! The Polish on-screen text doesn't particularly help (as usual, of course, you happen to be Polish...) and the printed English text is almost as hard, still, after a few goes you realise that Eureka is really quite a simple concept. It's a puzzle game which shares some similarities with several offerings from Ko Soft. However, this one's actually from A.N.G. of Holland who have imported several titles from Poland, where 8-bit computing

is apparently quite popular. Did you know that Atari are still manufacturing 800 machines for the Kazakov European? Eureka ticks off like a PD demo with a scrolling (Polish) message and a lively soundtrack. A press of the Start button reveals two piles of symbols/objects, each contained in a logic surrounded trough. Above them is a various diagram showing a sequence of symbols and a status line indicating the number of remaining lives, the cumulative score in dollars and the points

not needed for completing the current level. The reward rapidly depletes until it reaches zero and thereby terminates a life. What you're required to do is examine the left hand pile of objects and try to replicate the exact pattern in the pile on the right. By clicking a joystick pointer on an object you can alter its symbol, and that of the surrounding objects, in line with the diagram displayed overhead. If you manage to form the corresponding pattern you obtain an appropriate cash prize but if you get it wrong there's no alternative but to forfeit a life. To avoid defeat you must therefore study the situation carefully before making your move. There doesn't seem to be an option to save your game position, so exiting out of lives can be quite a frustrating event. Graphics and sound effects

are not spectacular but the game derives most of its appeal from the addictive nature of the puzzle. Once you get the hang of it, time just flies by! The main drawback, as with other games from A.N.G., is the poor standard of documentation. However, I understand that reviews supplied by Miles Drummond are likely to be somewhat less powered on the 'user' review copies I received, and would not have much of the program text translated into English. If you enjoy puzzle games of this type you will probably overlook the rough edges and simply appreciate the challenge.

Title: EUREKA
Publisher: A.N.G. Software
Supplier: Miles Drummond
Price: £5.95

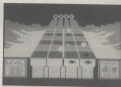
Reviewed by Paul Dixon

HYPNOTIC LAND

Nowadays, a new ROM cartridge is something of a rarity - a luxury too. No fringing was for the leading producer, an absence of disk errors. Just plug it in, switch on, and the game starts in a split second! **HYPNOTIC LAND** originates from Lindholm, who are closely linked with Atari's Indian Demos. It's now available in the UK, albeit in limited quantities, directly from Page 9 Publishing.

Hypnotic Land is a variation on the **Klax** theme that made its debut. Also defined early last

year in the form of **Hypersix** **Claggy** it, imagine you're standing at the end of a long ramp looking up towards its top edge in the distance. The ramp is divided into four lanes, each of these split into red and blue squares. At the base of one lane there's a cup on a pedestal and on the side, careful observation as your current progress. Coloured balls will then loop at the top of each lane towards your position. By clicking a joystick pointer in the red squares in each lane, you can place arrows which instruct the descending balls to change lanes in the appropriate direction. The idea is to ensure that any balls collected by a cup correspond in the colour of its pedestal. If you allow a suitably coloured ball to escape off the end of the ramp, or collect a wrongly coloured ball in the



cup, your score count is increased. Make more than five mistakes and the game is aborted. An unfortunate oversight here is the lack of a save game feature - each time you are forced to re-start from the very beginning.

On higher levels there are several of the problems to overcome with. Firstly, the number of cups increases from one to a maximum four and the balls are launched more frequently. To make matters worse, various easy enemies appear and steal the descending balls. You can shoot back

at them but all the while you must ensure that the balls are collected in their matching cups. Quite a challenge!

As far as the graphics go **Hypnotic Land** is no meaner for throwing a party but every thing is clear, colourful and quite adequate for the intended purpose. A nicely laid out interface has been provided throughout the game.

The game is highly addictive in itself but the fact that it's supplied as a ROM cartridge adds considerably to the playability rating. Congratulations to Lindholm for a bold move!

Title: HYPNOTIC LAND
Publisher: Lindholm
Support: Page 9
Price: £12.95 ROM
Reviewed by: Paul Stan



JOHNNY'S PROBLEM

Johny has a problem. Tomorrow is his girlfriend Margaret's birthday and he's already been out to buy her present - some pictures of well known actors' faces. Unfortunately his brother Charlie has found a large pile of pictures and miserably cut the pictures into lots of little squares. If Johny doesn't glue them back together soon, his girlfriend may never forgive him.

As you've probably guessed your job is to help Johny over-

come his dilemma. By manoeuvring a large cursor you must first release sections of the picture into a large grid where you can then attempt to reassemble them in the correct locations. Once they're on the grid you can slide the pieces around into position or, if you don't currently need them, send them back into storage. The task would be virtually impossible in the time allowed if it weren't for an extremely useful panel showing the correct position of the section of picture under the cur-

sor. You've still got to be careful though as occasionally a bomb is released too much for the plot and failure to return it in a few seconds results in the game's abrupt termination. On the positive side there are several bonus tiles that add valuable time to your otherwise decreasing allowance or even take you directly to the next level. There are twelve thousand tiles in all - enough to keep you puzzling for quite some time!

Johnny's Problem may sound similar to other 'jumbled picture puzzle' games but it does feature some unique touches and excellent visual effects. All the pictures are digitised and therefore recognizable, so you can also have fun guessing the personality before the computer reveals the answer. The surrounding playfield has been very well designed using the highest resolution graphics. The intro screen

contains scrolling game instructions and a very clever film strip effect of the various actors' portraits. Much too in quality stuff, though an optional silent mode might have been a good idea! I'm pleased to report that the game contains English text throughout.

If you're looking for something that's a bit different to the usual shoot 'em ups or platform games you could do a lot worse than check out **Johnny's Problem**. The standard of presentation is very high indeed and the game itself is a lot more addictive than you might imagine. The problem will be knowing when to leave it off!

Title: JOHNNY'S PROBLEM
Publisher: A.M.S. Software
Developer: Micro Document
Price: £3.99
Reviewed by: Paul Stan

OPERATION BLOOD

The software brought could be waiting for 16-bit Atarians for should that be Atari Classics? following Micro Discware's recent decision to market many imported games titles in the coming months. Heading up the first batch is OPERATION BLOOD from Paul Lund's A.N.G. software, who are probably better known for publishing the disk-based Mega Magazine.

Operation Blood is essentially a fast, fun-as-and-older shooting gallery. Your mission is to slice out the enemy and save the world! The instructions provided don't go over-

board on detail but fortunately the game itself is very straightforward. Virtually the entire playing area is occupied by your side-on view of a horizontally scrolling landscape. The scene is complete with buildings, trees, rocks, enemy formations, tanks, helicopters and other typical Bizarro. The adverse forces take great delight in constantly blasting you from all angles so it's useful to know that your joystick controls a small camera representing the sights of a machine gun. Whilst this is more than sufficient to establish frontal opposition, when it comes to tanks and choppers you'll be well advised to roll upon your square bar operated grenade launcher! Before you let up with the trigger you should bear in mind that ammo is in limited supply and it's worth looking out for the occasional bonus package. You can also gain

rapid fire ability and extra health units by shooting certain icons. Watch out for red cross officials and innocent bystanders though - you might save them later! A status bar at the base of the screen keeps track of your rate of success in achieving specific 'hit' quotas of tanks and machines. It seems to suggest there may be hostages to rescue on later levels, though this isn't actually documented like Polish screen prompts aren't too helpful either. No doubt there's plenty of excitement to start

though so the I can only admit to having experienced the first two scenarios!

Generally, Operation Blood is a good effort with some clever animation of the enemy forces. Mind you, it might not win an award for outstanding colour! Several effects include a reasonable time to accompany the intro screen and computer graphics screen during the game itself. Operation Blood is suitably different from other shoot 'em ups to ensure it doesn't have a great deal of serious competition. It has to be recommended.

Title: OPERATION BLOOD
Publisher: A.N.G. Software
Supplier: Micro Discware
Price: \$5.95
Reviewed by: Paul Elliot



THINKER

We proceed to our game - Kasia Polinska and UK's Arkade. The theme of both components is similar to Borealis, another game from A.N.G. reviewed in this issue. The basic concept requires the player to examine a pattern in one half of the screen and try to duplicate it in the opposite half. There is a timer that limits to complete the problem.

Kasia Polinska comprises ten grids of 51 squares, some of which are shaded to form a distinctive pattern. By clicking

the joystick pointer an arrow symbol at the ends of the rows and columns in the right hand grid you can shift them along by three squares at a time. Combining the movement of rows and columns in this way (hence the Rational) you should be able to recreate the pattern depicted on the left. At first it's fairly easy but then, when you're just beginning to get the hang of it, the pattern becomes more complicated and it's quite a challenge to succeed in the time allowed.

UK's Arkade also contains two grids of 51 squares but this time the joystick is used to slide squares into a vacant space. In much the same way as Borealis the game provides few 'hinty' problems for a good example. Some of the squares contain colored symbols - straight, corners, T junctions and so on - and again the intention is to duplicate the pattern on the left of the playfield. After level one things start to get tricky!

A welcome feature of both games is a password system which ensures you don't have to keep slugging through previously completed levels. Just take note of the code at the base of each screen and you can then jump directly to the level in a future session. The user interface is generally very friendly - for example, pressing the Escape key at any time takes you immediately back to

the game selection menu. The track key activates pause mode whilst the space bar toggles the design of the joystick pointer.

Graphics are very well defined and expertly shaded, with some nice special effects at the start and end of each level. The only niggling point is the Polish screen text (this might be translated in the UK release version). In common with other Polish games,

Thinker is accompanied by some good music which, as usual, can't be switched off! Overall the game is very enjoyable.

Title: THINKER
Publisher: A.N.G. Software
Supplier: Micro Discware
Price: \$5.95
Reviewed by: Paul Elliot

THE ACCESSORY SHOP

ISSUE 60

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HAND HELD FUN

Recent or imminent releases for the best colour portable on the market include: Baseball Heroes, Basketball, Baseball 2000, Cubed, Dancesport, Dynolympics, Dirty Larry - Mercenary Cop, Dracula, Jimmy Connors' Bad Boy Tennis Challenge, Lemmings, Mahjong Mini-Volleyball, Ninja Nerd, Pinball Jam, Ralder, Rolling Thunder, Shadow of the Beast, Steel Talons, Switchblade II, Ultra Star Raiders, and Vindicators.

Unfortunately I have only been able to get my hands on a few of them so far, and usually they arrive for review as a pre-release version - just a naked chip on a bare circuit board, with no box or instructions at all! This means that sometimes I may miss some of the subtler points of the game and I can't always tell you how many people can join in or how many levels there are, but here is what I have learnt so far.

DYNOLYMPICS



The Lemmings class have started arriving (but despite the fact the everyone knows that there was never a period when men and dinosaurs walked the earth together, how they are again?) You control a tribe of little men who, unlike lemmings, was potentially to be given instructions rather than wandering mindlessly to their death. You control one man at a time on an eight way scrolling screen. He can walk in any point within reach, form part of a living ladder to allow others to climb higher, pick up useful items, or lay some level's obstacles a useful item - although this is to be avoided except where necessary as one of your tribe has to sacrifice his life to complete the magical warming ritual!

Your men can carry one item at a time and it gives him extra abilities, for example a spear can be used for leaping over chasms or killing dinosaurs, a rope can be used to help other members of the tribe take short cuts or to reach otherwise unattainable locations, a torch can be used to burn down obstructions, a wheel can be used for leaping over water chasms, and so on. Most of the items can also be thrown, either to allow you to get multiple items across a chasm (later you need to be building a spear in order to reach more) or to allow a group of you to cross a chasm with a single spear.

Levels vary from simple ones which teach you how to use a new item to complex ones where you need to work out the optimum route across all the platforms, position men as supporters to give a leg-up wherever needed or as rope holders to make new routes. They reward items along the route you have made, burning obstructions and destroying enemies, to reach this level's objective. AND you are timing against time!

You get passwords every fourth level (I heard I got my first one after level five and I assume they come at regular intervals - I haven't finished level eight yet!) - although why they don't give you a password on every level (like Lemmings and Crystal Mines) is a mystery to me! You start with ten men in your tribe; some will die along the way, some will be sacrificed to overcome required objectives, occasionally a new man will join the tribe. I suppose playing the levels in groups of four means you have to be a little more careful about keeping your men alive so that you can finish all four levels to see go, but I do find it tedious having to spend about seven minutes replaying levels five, six and seven just so that I can try level eight again! It also seems slightly unfair that on some levels when someone dies while carrying certain items, you are stuck and have to go back to your last password.

Apart from that the game is superb - excellent graphics, nice soundtrack, clever puzzles to solve, great fun to play!

ALL ABOARD



Railroad Tycoon has been around on the PC for quite a few years now and in that time it has been one of my favorite windows of time. It has only recently made its way on to the ST and my first thought was how it would be converted to work without too much happy snapping. My next thought was whether the graphic standard would be altered. My fears on both counts have been allayed by some smart Microsoft programming.

First things first though. The box comes with a warning sticker stating I MUST only use ambiguous references which start to deter me. On my old portable test disk \$125 PC it worked fine, if slowly, so why should it need a map on the ST? Since my 1040 is still not at all well and the Christmas lull has not yet seen fit to

aided drive is necessary. All the same have a word with your dealer first just in case I got lucky.

New to the game, I was glad to see that the atmosphere was the same as the PC and the graphics seemed to have been ported from the MSDOS 320 x 240 mode with the necessary 256 colours or so. Indeed the ST looks better than the PC standard. Response was very good and the sound was excellent. I was always conscious of the chugging and whooshing of steam trains!

The aim of this game is to build and maintain a railroad along with managing the attendant problems of crashes, floods, strikes and property speculation along the way.

The opening screen begins to suggest the depth of this game. You are offered several

levels of play together with multiple options of difficulty within each level. For the first game make it as simple as possible for once this gets under way you will need to concentrate on tactics. The computer does generate other opponents who will build railroads to compete with you. Each of these prospective owners have their own personality and are based on historical persons. In one game I found myself facing George Stephenson, Napoleon III and Mr Howard the man to read the very thick manual before starting play as it gives an insight into the style of the various opponents. It also explains the nature of the different sorts of mining stock available. Once you have chosen your level of play then you are asked where in the world you would like to develop the railroad. The possibilities are the Canada or Western USA, England and Wales (no Scotland) or Europe (this contains the besties: bit of Britain and a map stretching from Portugal to mid Russia). Each map has different associated ranges and thus presents different problems. My favorite map is the English one although the way the game is slanted the US maps are probably the best balanced. I found the European map can be cheating and as a result it loses a little of the best but the other three maps offer.

Once the options and the playing area are selected there is a time to decide on your first track laying exercise. This takes time to consider since the player needs to have an idea as to what sort of service to provide. As a rule it is best to consider passenger and mail transport in the early months since there is normally a ready supply and demand for these. Once the track layout has been decided upon (London to Chatham or Canterbury can be good, as can Liverpool to Manchester) the station need to be built. The first station of the game will include a stockyard which the coaches of which your mining stock is built.

In the first few months your train will be something akin to the Rocket, a slow moving but relatively inexpensive machine that will carry one carriage comfortably and complete in more than 100. It is then time to set a route and range for

WIN A COPY OF RAILROAD TYCOON!

You can be the lucky winner of a copy of this great game by simply answering the following questions.

- | | | |
|---------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|
| 1) Complete the Railway
Site Navigation and
—— Railway. | 2) When was the Direct
Express withdrawn
from service? | 3) Which Railroad
Engineer did Alan Hale
parking on Television? |
| A) Edendale | A) 1955 | A) Harvey Jones |
| B) Eldon | B) 1977 | B) Casey Jones |
| C) Beldale | C) 1988 | C) Casey Court |

The Breaker: What is name of the American who invented "luxury" train travel?

Just fill your answers down and send them off to Railroad Tycoon, Page 8, P.O. Box 34, Stafford, ST16 1DA. Closing date is 28th February 1983 when the winner will be drawn from the correct entries received.

WARD!

INT FOR

the new train. This is the formal and familiar of the railroad. The more passengers, letters or goods that can be transported from A to B the better the revenues. This of course assumes there is a demand for the service you offer. It is all very well transporting coal for instance but if had better go somewhere with a steel mill so that it can power the furnaces to produce the steel that the factory needs to make the goods that the ports export and so on. It is one of the complex joys of the game that certain goods create other goods that are wanted at other points.

The easiest way to demonstrate this is to describe a simplified game. I have stations at Leeds (which has a textile mill and therefore needs cotton) Liverpool (which has a port that supplies cotton and demands passenger) and Manchester (which demands textiles and has passenger to travel). My train starts in Liverpool with a cotton truck, travels to Leeds where the cotton is sold to the mill and converted to textiles. These are then taken to Manchester where they are sold and where passengers embark to be taken to Liverpool where more cotton is loaded. This is a somewhat simplistic scenario but gives a flavour of the decisions that need to be plotted.

When it is considered that a player can be running up to thirty or forty trains at a time and even possibly those adding them in and out, the scope begins to become clear. If that is not enough there is a constant technological improvement. Although you start with the

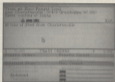
Rocket, as the game goes on progression to The Flying Scot or even TYR is possible, leaving the player the more advanced decisions as to when to upgrade and to what. If that is not enough to be thinking about then consider that the other players are trying to take over your railroad by either financing you out

of some towns or by buying your stock and merging the company. And if you are not making a sufficient profit your shareholders may well vote you out of office. Loans need to be obtained, stock sold and shares purchased to attack or defend your position, stations can be improved to serve larger areas or in the face of alternative industries. Taxes may even grow around your stations owing to improved business.

This is not a game to sit down and play with for an odd half hour. This game needs serious and practising. It is also a game that will stir the blood of all train enthusiasts. Each particular locomotive is depicted as a colour graphic with all the statistics about it available from the menu system and in the handbook.

There are some pleasant graphics events to note, memorable happenings such as your first train to a station or building a bridge. It is actually worth one train colliding just to watch the associated action.

This is a strategy and business game that I cannot recommend highly enough. If you



have an ST with a double sided drive you must put this at the top of your shopping list. If you are one of those lucky people who have a hard drive it installs marvelously, on an disk protection just an irregular track based system which will make many train spotters into computer fans. My only complaint about this game is that it did not come out sooner on ST format.

- **SMART & SOUND** - excellent and atmospheric, the only thing missing is the smell of smoke!
- **GAMEPLAY** - full of interest, addictive and challenging
- **OVERALL** - buy it, if necessary get the upgrade to the floppy. You will not regret buying this game!



RAILROAD TYCOON

Microprose
\$29.95

Reviewed by
Darren Howarth



PD WORLD

Paul Rixon's

The ST's highest resolution mode is probably one of its most underrated features. The fact that it requires a dedicated monitor for switching to a really multi-scaled is sufficient to dissuade the majority of users from exploring the world of icons. Besides, most hi-res applications in the costly expensive business oriented sector - or is it? No doubt you guessed I found a wide variety of programs aimed specifically at icon users by searching no further than the Page 8 public domain library! Colour icons don't stop reading yet - there could be a surprise in store later on...

MAGNIFICENT DISK LABELS

If you have a lot of disks you'll know how difficult it is to locate specific programs when you need them. Some sort of indexing system becomes essential and the key to this is effective labelling. This is where **STICKER** comes into its own. It's a brilliant disk labelling program from Germany that's been fully translated into English. The user interface is unusual in that there are no pull-down menus but this doesn't mean it's difficult to use - quite the reverse, in fact. **Sticker** displays a template on the screen and by pointing at various areas of the label, in comparison with other action icons, you can add text and graphics as desired. The current disk's directory is shown to the right of the label and you can copy file entries, complete with date or file size, over to text slots on the label itself. You can include a picture in illustrated the nature of the software. There are many to choose from and add text descriptions to various positions. **Sticker** handles inverted printing for the full-over portion of the label and will even print the disk number along the top edge. The real product looks very professional indeed and is just the right size for printing on continuous tractor feed disks.

Labels I obtained some large rolls from CLP, Tel. 0228 4288448. Existing sticker users will not want to be without the supplementary disk **STICKER ICONS** which provides dozens of additional pictures to include on the labels.

Another one recommended for printer users is **DELUXE POSTMASTER 3.0**, a text publishing package that's rather



STICKER - surely the best disk labeller of all?

like the brilliant Daisy Dot system for 4-bit users. The disk comprises two main programs, a font editor and text editor, plus demonstration text, fonts and fonts from external fonts. The text editor lets you load your own ASCII files from disk and then print them out to an IBM, NEC or Epson compatible printer using any available typefaces. You can modify the text using its built editing functions and specify various parameters on each line to control the character width, text alignment and text wrap. You can even insert control characters to change fonts mid-way through a line. There are dozens of fonts provided but if you want something different it's not a problem - just load up the Font Editor and design your own! To use this you simply click on an existing character and then point your own design onto a large grid. There are facilities to adjust the overall character width, shift the character in any direction, and also use mirroring effects. It does require some effort but the end result can be quite impressive. Your documents may never look the same again!

FOR THE ARTIST

For those artists who are looking for a devoted icon art program, **PUBLIC PAINTER** may be the answer. It provides all the familiar drawing functions plus one or two extras that are rarely seen elsewhere. The documentation starts off with a list of things the software **CAN'T** do - such as print to non-Epson compatible printers and adjust the spray can attributes - but this part is intended in comparison to the subsequent list of features. You can load picture files in several formats such as Degas or Doodle and convert others including Neochrome and Art Director. You can add text to pictures using any Degas style fonts and these can be printed in any direction. A clever part is the 'bending' function with which you can create some spectacular artwork, having text or sections of the picture 'warped' in different ways. There are twelve font codes based on mathematical formulas, all easy to use but not so easy to explain! Work facilities are comprehensive and include flip, mirror, rotate, print, copy and other effects. Fill mode offers many different background patterns - even Paj symbols wallpaper! Whether you want to have a quick doodle or a serious artwork session **Public Painter** is a capable, user-friendly tool that shouldn't be overlooked.

PLAYING AROUND

Of course, more computing isn't restricted to 'technical' applications. Everyone enjoys entertainment now and again and naturally there's no shortage of more games in the public domain. **MONO GAMES II** is a typical compilation of games and contains three excellent games on a single disc. Alfred's Strateger Schachbretter for MSX is clearly

is based on a concept also known as Solo or Fagan (8-bit Amstracs were formerly treated to the latter). Using the arrow keys you command a worker who is required to shift barrels around a workspace and place them in the proper locations, within a strict time limit. The barrels must be pushed from behind and cannot be pulled as you have to be careful to avoid getting stuck in a corner. There are dozens of challenging levels but a screen editor is provided so you can build your own! The program is German but English instructions are supplied and it's really easy to play. Drawing is a German text game for up to six players. The players take turns to draw three dice with the intention of getting a score close to the number thirty that is drawing in Germany. If the total is short of this magic figure the player loses points but if it's exceeded there's an opportunity to challenge the opponent's score by obtaining the same number in the surplus in a subsequent throw. The game is easier to play than rummy, and it's particularly fun with several human participants. Last but not least, Inverto is a version of the classic Othello later known as Reversi) in which two players place counters on a grid and attempt to convert the majority into their own colour. This game is VERY addictive!



Developed from MOZART'S DICE - dice fun for up to six players

MOZART'S DICE - millions of possibilities, all of them producing sensible tunes!



PLAYING MUSIC

Still on a musical theme but this time of a musical nature, **MOZART'S DICE** is possibly the only PC program that can claim the ability to compose more than 500 million, million different pieces of music! To play them all would take over 500 million years - who knows, by then there could be market for Mozart's 'Dice Waltz' was first published in 1762, the year following his death, and is a kind of game played with two dice. Depending on the value thrown a line of music is selected from a predefined collection and added to the current composition. This is repeated sixteen times to complete the waltz piece. Though Mozart wouldn't have dreamed it, this process is an ideal task for the microcomputer. It's primarily intended for use with a MIDI instrument (MIDI definition files for the Casio CPS-101 and Yamaha PS6-480 are supplied but you can create others) though it will also play through the PC's internal sound chip. The PC's high resolution graphics are used to great effect in displaying the faces of music. It sounds pretty good too! Showware on the same disk are other goodies for MIDI users in the form of a dozen of the commercial package EZ-Score Plus and also Publisher, a MIDI music experiment kit.

USE THEM IN COLOUR!

Okay, admission time, I don't have a music monitor or a multi-sprite! All the software reviewed in this article was run using the commercial **EMULATOR** simulation program, obtained from Commodore Enterprises. I hope this illustrates the point that a large proportion of music PCs can be used by owners of colour monitors too. Whilst I'm not suggesting that a colour monitor is anything less than essential for serious music computing, it's worth knowing that many programs - especially applications such as

Strike and Fontmaster - are perfectly capable under mono simulation. Whilst using a variety of library disks with the Emulator I encountered few compatibility problems. All the programs specified by reviewers above were used without incident.

One of the latest disks to join the Page 6 library unfortunately too late for review) is titled **MOZART EMULATOR & GAMES**. It features a complete clone of a commercial music composer and a selection of music game software. This could be the ideal introduction to music emulation, why not try it?

No letters for last issue's FREE GIFT yet... is anyone out there?

HOW TO GET THEM

The disks featured in PC World can be obtained from the PAGE 6 PC Library. When ordering in a specific disk please use the unique reference code for identification. A printed catalogue describing all the library disks in detail is available from PAGE 6 at a cost of £1.00, refundable against the first five disks ordered. This includes a copy of THE PAGE 6 CD-ROM data which is otherwise priced at £1. The disks featured in this issue are:

STRE - STICKER	STRE - MOZART'S DICE
STRE - PUBLIC PASTER	STRE - MOZART'S DICE
STRE - 8 BUCKLE CLOCK	STRE - MOZART EMULATOR & GAMES
STRE - STRIKE FONTMASTER 6.0	

Prices for standard disks are £2.95 each or £2.50 each for five or more but prices are lower for members of the PAGE 6 PC Club. Write to PAGE 6, P.O. Box 24, Southend, S70 1RN or telephone 0206 216666 with credit card orders

FLIGHT SIMULATORS

FLYING DOWN THE WIRES

Do you NEED another air combat simulator? I suspect, as I sure do, the contents of the parcel sent by me to Neil Kilian. Then the review quotes on the program's packaging caught my eye: "...best flight simulator ever." In *Aviation* Forum's opinion: "...thrilling...the greatest experience in flight simulator history." says PC Forum; and an "...incredible realistic flight simulator" according to What PC. If these quotes are true, then the answer must be yes! But are they true?

The program is supplied in a 3.5MB box, which contains mostly soft. Appropriate it suppose for a program called Air Warrior. The box contains a large glossy poster of Spitfires in flight, with a map of the Air Warrior combat area on the reverse; three double sided disks containing the program code plus supplementary graphics and sound data; and two good quality instruction manuals. It also contains two manuals, more of which soon.

Air Warrior will run on a 5.026 XT/286, although 10MB upgrade up certain graphics operations. You also need a double sided diskette drive and a colour TV or monitor, as the program runs in low or medium resolution colour only. But now for the crucial Air Warrior also needs a modem capable of operating at 1200 or 2400 baud, so to use it to the full you have to connect your ST to On-Line Entertainment's host-computer via the phone system.

MODEM VOUCHER

If you don't already have a suitable modem you can use one of the vouchers supplied to buy one at discount from On-Line Entertainment, although you'll find cheaper ones yourself if you shop around. Expect to pay at least £20 for one that's suitable for Air Warrior, but remember you can also use it to connect to any of the hundreds of live bulletin boards and commercial on-line services.

now operating in the UK.

Please note that On-Line's host system is NOT a free service. It costs £1.25 per hour to use, and to this you must add the cost of the phone call. The second voucher supplied is for free access to On-Line's system and 230's worth of connect time, enough for about 15 hours of use without further charge. But remember, you still have to pay for BT hours worth of phone calls.

Air Warrior can be considered a pair of programs. You run the "front-end" program on your ST, and this handles all the flight simulation maths, animation and screen handling, sound effects, and user inputs - mouse/keyboard for flight control, and keyboard command text input. It also deals with communication with the "back program" part of the program pair. This handles all the various multi-player internet items available, combat, scoring, and game record keeping. Working this way means you can become a player in a huge multi-player game, with up to 40 people taking part simultaneously.

It is possible to use Air Warrior without dialling into the host system, but you'll be totally alone in your simulated world if you do. This is OK for learning to fly the various aircraft represented, but if quickly gets pretty boring after you've done that. The whole point of Air Warrior is to provide interaction with other users, and this of course requires on-line connection. Your simulated world is then shared with all the other users currently logged onto the system, and you can interact with them much as in real life.

FRONT END ONLY

Air Warrior is complex, so your first task is to learn how to operate the ST front-end program. After loading it you are presented with a set up screen, to set the program's communications parameters for establishing contact with the host

system. It also handles selection of the program's machine options, such as use of the "jetpack mode", loading of sound effects, and use of digitised sounds, either via the TV/monitor speaker or routed out through an ST-404 speaker bridge. The program doesn't appear to use the ST's audio outputs though. This screen also has loading and playback facilities for the "film" taken by the gas camera carried by each aircraft. This allows you to re-view your own air battles or even look at film taken by other pilots. Two really made films are provided, so you can check out the action you can expect to see without going online. One of the films is complete with on-screen commentary, and takes the form of a gunnery lesson, giving useful hints and tips about dogfighting. The facilities also allow you to do the impossible - move the viewpoint of the camera during playback to one of many EXTENSIVE positions, so your own aircraft is included in the view.

The final function of this screen is to enable you to choose your "mode of transport", which may be Fighters, Bombers, Jets, WW1 Planes, and Vehicles. Yes, you can also drive land based vehicles as well as fly aircraft in this simulated Twenty three different aircraft types are available including such diverse models as Spitfires, B-17 Flying Fortress, F86 Sabre, and Super72 Carrier. Each has been carefully modelled so its simulated performance is close to the real thing. The land vehicles - Jeep, Tank, T34 Tank, and "Madagascar" are included to enable you to engage in a limited amount of combat activity on the ground, but we'll cover this when I describe the online scenario.

The basic view from the cockpit of each aircraft looks very similar, having the traditional flight instrument layout of instruments panel in the lower half of the screen, and the view through the canopy above it. The instrument panel is fairly basic, showing the bare minimum of flight instruments. Overall I wasn't very impressed by the graphics.

CUSTOM GRAPHICS ..

It is possible, however, to improve the look of the cockpit by loading sets of customized graphics of the cockpit interior. Customization seems to include the instruments themselves, so it's really only the usage and instrument panel styling that changes. A set of graphics can include all possible views from the cockpit, i.e. all around you to 45° instruments from the front, plus variations looking upwards, downwards, and leaning left and right. The complete set contains 20 different views, so producing it is not a trivial task.

Individual views may be created using your own laserwriter paint program such as DDLAS (not provided), then packaged together into one file for loading using the utility program provided. Several samples of customized graphics are provided, and they do make those views from the cockpit much more attractive.

The only problem is, each view is loaded from disk when selected, involving an unacceptable 5-6 second break in the action. This is where the "picture cache" mentioned earlier comes in. Using it, a view only gets loaded from disk the first time it's used, and remains in memory for subsequent use, all but eliminating the annoying loading delay. With 128K of memory you'll only have space to hold

one or two views, but one megabyte gives you much greater scope.

..AND SOUNDS

It's also possible to load in customized sets of digitized sounds, covering such things as engines starting and running gear being engaged, explosions (you think and similar. There's a diverse set of sounds provided, so you can use the supplied utility to package your own. On-Line's best system also has graphics and sound libraries from which you can download more customized data if you wish.

The manual doesn't cover the sound and graphics packaging utility at all, and the MEGADISK files on disk aren't very helpful either. On-line have a helpline number you can phone, so it should be possible to get more information if you need it.

When everything is set up to your liking you can position yourself at any of Air Warrior's airfields in your chosen aircraft to start the business of learning to fly. My initial impression of the view from the cockpit wasn't very favorable. There isn't much to see out there - a lot of blank sky and ground, punctuated by the odd pyramid shaped mountain, occasional lake or river, and airfield complete with old hangars, supplies dump, and control tower if you're lucky. Once in

the air you also get to see a few more structures, including factories, railways, river bridges, and a tiny "capital city" of such size. However, Air Warrior isn't about size accuracy, so it's not got me being up about it.

IN FLIGHT

Taking off in your chosen aircraft is fairly easy, but maneuvering takes a little practice. I found control using the mouse to be a little unpredictable, although you can adjust the sensitivity on the setup screen. Even so I still found it rather imprecise, but it gets easier with practice. In the air the aircraft still seems to behave quite well, reacting as expected to throttle, flap, airbrake, landing gear, and primary control inputs. They stall as expected, but I couldn't persuade them to spin at all.

As with most flight simulators having the aircraft in one place in the real world (Air Warrior seems VERY busy about how you returns to terra firma - anything more than a gentle kiss of yours on the runway and you're dead) I guarantee you'll find a lot of anomalies before you get the hang of it.

And that's about it really - without going online all you can do is take off, fly around, do a few variations perhaps, and land. When you can do all this reasonably well you can think about dialling up that load computer and trying it online. I hoped I'd be able to do this before the copy deadline for this article, but On-line didn't manage to get me registered on their system in time. Why it should take them over a month to do this beats me. You can actually dial up and register straight away, but you have to pay extra for this privilege! Being a miserly old *** I didn't do this, so you'll have to wait until next issue to hear about the various scenarios and how I fared when taking part. With our best!

AIR WARRIOR

On-Line Entertainment

Price: \$34.95

Reviewed by John S Dalton



Just a few of the many planes available - F96 Sabre, Spitfire, Mustang and B17 bomber

MAKING MUSIC WITH YOUR ATARI

*John S Davison's
regular guide to
making music
on your favourite
computer*

The Atari ST has been the high-tech musician's favourite computer for many years now. Thanks to its 'power without the price' to its built-in MIDI ports, and above all else, to the software houses who've produced high quality MIDI application software to exploit its unique features, software availability is THE key to success for any computer - and what can we say now? One by one the software houses, particularly those producing games, are quickly dropping their support for the ST and focusing on other software formats.

More worryingly, the two major players in the ST music software arena, C-Lab and Steinberg, are also diversifying into supporting other machines. C-Lab have recently completely redesigned their fantastic Notator sequencer and score printing package - but for the Apple Macintosh instead of the ST. An ST version is promised, but in the light of recent trends it wonder if it will ever appear? Similarly, Steinberg have now released their flagship Cubase sequencer package on the IBM PC and Apple Mac. Oh, neither company has actually stopped supporting the ST yet, but in the writing on the wall?

These moves are understandable, as both the Apple and IBM machines are rapidly gaining popularity with musicians as their specifications rocket and prices plummet. I hate to say this, but the ST had even the TI look decidedly out-of-date, unattractive, and unimpressive compared with IBM's latest offerings, and Atari now desperately need a new machine

to compete if they're to survive.

There IS a ray of hope for Atari, if they get their act together. In case you hadn't guessed, it takes the form of the Falcon, Atari's latest attempt at fighting back. From the specifications you'd think it had been designed purely with the musician in mind, although it should also be great for games and 'serious' applications. Let's have a quick look at the features likely to stir the imagination of high-tech musicians - and hopefully the software houses too.

TWO MODELS

Initially, two Falcon models will be offered. The entry model costs £499, and has 1MB memory and a 1.44MB floppy disk drive. The enhanced model at £999 adds a 64MB hard disk and has 4MB memory, but otherwise has the same basic features as the cheaper model. And what features?

Firstly, the Falcon provides a big boost in raw processing power compared with the ST. The Falcon's full name is actually the Falcon200, reflecting the fact that it's designed around the 20-bit 1000 to Motorola 68000 processor chip, like certain mid-range Apple Macs. There's also rumour of an even more powerful 68040 version (Falcon400) to follow, but this may just be the usual Atari marketing smoke-and-mirrors. As well as opening the door to exciting new applications, this extra power should make existing heavyweight musical tools such as graphical score editing run much faster, making it easier and more pleasant to perform on a computer screen than it is now.

Circuitry allowing playback of sampled samples has been available on various computers for ages now, either built-in or as plug-in accessories. Generally, performance hasn't been very good though, usually because most use 8-bit technology and relatively low sample rates. The results just aren't good enough for professional use - whatever the ads might claim! The Falcon aims to change all this, as not only does it have playback circuitry, but also the means of digitally recording sound. And amazingly, everything works in 16-bit resolution at sample rates up to 50000. Now what does that mean? Yes, genuine CD-quality sound!

Simply providing the sound digitising circuitry isn't enough though, as digital stores sound at this quality level gobble-up a staggering 10 megabytes of storage per minute of playing time. No, the average three and a half minute pop song requires 35 megabytes of memory to hold it, making the concept a non-starter because of memory cost. The solution lies in a development of technology already used on the ST - the Direct Memory Access (DMA) facility.

DIRECT TO DISK

Originally DMA was designed to enable data to be transferred between the ST's memory and a hard disk with minimal CPU involvement. The Falcon can use it to transfer digitized sound data directly between hard disk and the sound circuitry - which means you can plug a hi-fi stereo audio source into the Falcon and record the digitized sound directly onto a hard disk with little CPU overhead. Similarly on playback, digitized sound data can be read from hard disk and played back at hi-fi quality via the Falcon's stereo audio output. There's no need to hold the complete recording in memory to do this - the software just has to ensure the sound circuitry is continuously fed with data at the right rate, using memory as a buffer.

Now this isn't of much value, but with appropriate software the picture changes considerably. A prime application area for Falcon is digital sound editing. Imagine being able to accurately cut up a digital recording into separate pieces, then resequence the pieces together to any order so they'll play back seamlessly. Imagine being able to cut out a singer's wrong notes, reinsert the right ones, and splice them back into the sound track without audible glitches. Or to selectively remove solo effects and other extraneous noises. Or repeat, reverse or otherwise without the hassle of rerecording them. Or seamlessly fade out a song at its conclusion. And all done non-destructively, without the need to mess around with magnetic recording tape! The possibilities are endless - with appropriate software.

There's nothing new in this, even - it's been possible for some time using old-fashioned hardware, but again this tends to be VERY expensive. The breakthrough to this it's standard on the Falcon, for a fraction of the price! OK, you still need to buy hard disk capacity and appropriate "direct to disk" software, but suddenly the whole ball game has become much less expensive. Potentially, professional quality digital recording, editing, and replay facilities could now be affordable by almost anyone. It could cause another major revolution in music production, probably as big as that caused by the ST with MIDI. And that's target - the Falcon will have MIDI, so we could soon see software combining MIDI sequencing and direct to disk recording facilities.

EIGHT CHANNELS?

Although the Falcon is said to be capable of handling eight sound channels it's not clear yet whether it's powerful enough to act as a proper CD-quality eight track digital recorder. Two track stereo operation has already been demonstrated, which means the Falcon could at least be used for digitally editing stereo master recordings prior to transfer to master tape for duplication. However, how fit that one software house is already working on a four track package. However, the built-in 64MB hard disk is too small for doing much more than this - using four tracks it would hold about 600 seconds worth of recordings; with eight tracks just 300 seconds worth! And this assumes you're not wasting disk space by anything so trivial as storing software on it!

For true multi-track work or for stereo mastering longer material Falcon needs additional external hard disk capacity. It handles these via its built-in SCSI-2 (Small Computer System Interface), Mk-II port. This allows high performance industry standard hard drives (lower cost hard disks of steadily increasing size to be attached, and you can daisy chain a number of them together to add capacity as you need it, assuming that the cost of extra drives can be justified.

VGA DISPLAYS

If the SCSI interface was a surprise, then the video side of things is a bigger one. Not only does the Falcon's monitor port let you attach existing ST colour and monochrome monitors, but also IBM PC style VGA Video Graphics Array monitors. This is great news, as there's a terrific range of high quality VGA monitors now available at prices starting at well under £200. The Falcon's improved colour and resolution should make most look as more exciting, and digital hardware editing makes us the eye than ever, better even than the ST's excellent hi-res mono monitor.

Another Falcon unique is its built-in Motorola DSP (Digital Signal Processing) chip. This allows digital signals to be processed in real-time to add reverb, delay, chorus, flanging, or whatever other effects algorithms the software authors are able to come up with. So, as well as becoming a master or multi-track recorder the Falcon could also act as the own effects unit!

Falcon will also eventually be getting a new operating system known as Multi-TOS. The bad news is that it won't be available initially, so Falcon will arrive with TOS 4.0 instead - an enhanced version of the operating system currently fitted to Mega STE and TT machines. Multi-TOS will probably be made available later as a disk based upgrade. (I just hope it isn't another example of Atari captureware!)

Multi-TOS is billed as a true pre-emptive multi-tasking operating system, under which several programs can be loaded and run simultaneously. It's not the simple "program switcher" type of utility now available on the ST, which allows you to load several programs into memory at once and manually switch between them as required. With these systems only ONE program is actually active at any one time, but under Multi-TOS it should be possible to have several programs active simultaneously. For instance, you could be recording a synthesizer track from your Falcon keyboard using your favourite sequencer, synchronized with a completely separate program which is playing back an acoustic recording of vocals and guitars from the hard disk.

COMPATIBILITY

There's one small snag though. As with the STE and TT I suspect we're about to be frustrated by the spectre of software incompatibility ever more! For programs to run successfully together under Multi-TOS they must be written in compliance with the official Atari software interfaces. Again, as on the STE and TT, for programs to run AT ALL on the Falcon they must not break those interface rules. Programmers, particularly those producing games, tend to ignore rules in the quest for maximum performance, so it'll be surprised if compatibility isn't an issue! It's already known that the current versions of C-Lab's Explorer and Creative Empower packages won't run on the Falcon, and C-Lab will NOT be fixing the problem!

The major issue is watching the Falcon erode carefully. For the high-tech machine its potential is tremendous, opening up a whole world of creative opportunities at a much lower cost price than previously possible. But, to return to my opening theme, realizing that potential needs the support of the major software houses. This means they must release software which exploits Falcon's unique features as soon as the machines go on sale. APC - to encourage existing ST users to upgrade to Falcon - Atari MUST work with software houses to ensure existing software can be run on the new machines. With Falcon's arrival imminent that work should already be complete. Do you think it is? I suspect we all know the answer to that, don't we? Please, Atari, prove us wrong!

PREMIER MANAGER

Well, it's football game that is the successor to a rather successful format, that's novel thing. Creative have launched this updated version of the old Football Manager with a lot of zip.

What actually comes in this football frenzy? Well, it's not a quite reasonable sized NT manual, a little underplayed but more the less said, and then a very difficult piece of cage protection. The game comes with a school that has various coloured football strips on it. Unfortunately the printing of the colours is somewhat off shade and this means that the guessing what kit goes where becomes harder and even with the sheet there is a tendency to fall the test. Still when the protection is removed the game looks quite entertaining. There is an option for up to four players at a time and the chance to name and colour your own team. Sadly these teams at the start may only come from the Football League. As the seasons progress and as you are recognized as a more capable manager other teams may well ask you to take part as their man in charge. There are 512k machines should be aware there are quite a few options in the game that are only accessible to the 384k version and this limitation ruins the manager out from playing in Europe generally and some of the other cups are also lost to you. That minor problem aside the game plays equally well on all machines.

Over the game boots up there is a good menu screen offering a wide selection of options to play. There is very little help as to where to start and you have to learn the game from buttons up. The instructions book offers all the help that is needed but does not tell you what to do with the various bits, for example when and why do you upgrade the stadium to the ground? The amount of cover comes with practice and insight.

At this stage I have not begun to explain the team and match day, however it really is the last thing on the managers mind at this point. Over the state of repair of the ground is decided upon then there is the job of obtaining matching sponsors to fill up the benches at the side of the pitch. For the financial side of this management game is very important. Now the real thing to do is ring the job centre as it seems that there may be FTB reaching out for him and this helps your players come on in leaps and bounds. Now, at last, it is time to look at the team.

The players are rated like AA Hotels with a five star guide but this is further divided into a star rating within each standard of player. For instance is a five star last player better than a one star goal player? What effectively appears is a fairly three point scale allowing a player to be adjudged the ultimate at whatever particular position he plays. Training will allow a player to progress so far, if never managed to cross a search bar but did manage to improve star ratings on a player. The head coach will recommend training schedules to you but in the final analysis it is once more the manager's job to take that final decision.

Of course while this gives you a considerable year manual to look for particular types of players, this means that every so often you will have the option of bidding for new players to bolster weak spots in the league. Money guide to good soccer players. Your scout will recommend bidding prices but even then the player may



" needs brains to play! "

reduce your offer and go elsewhere. At this point it is fair to point out that either the computer or other players may well bid against you and thus your record or offer will be taken into consideration. Don't expect penalty-diverter stars to play in the FA Cup, Football League for instance.

Finally comes the match itself. Select a team and sides and choose one of four tactics and setups. The play rolls from end to end with textual commentary. There is an option to extend it half time and all the stats are available at full time. These include tackles attempted and shots made. The game does in fact rely on the management input rather than playing. I liked this game. It needed brains to play!

- **SCOUT & BOARD** - our best, interesting scheduling efforts, some sport sounds is little thing
- **GAMEPLAY** - takes some getting into, but once the interface is mastered it is okay
- **OVERALL** - a good management simulation for prepared to have midnight oil with this



Title: PREMIER MANAGER
Publisher: Gamelin
Price: £29.99
Reviewer: Damon Howarth

LOTUS III

Lotus III is the sequel to Lotus Spirit and Lotus II, two CD I sometimes wonder whether these sequels will outlast Rocky. Maybe they will just amalgamate them all. Rocky starts Lotus III or something, sometimes these really can be too much of a good thing and I felt this package was beginning to look for new ideas in an old format.

The packaging is neat and cute, providing little but the new track layout system, MICS, of which I shall write later. The opening sequence is strong, good beat music and some attractive car pictures, despite the fact it is all in magnificent mono. I actually started to think the RT had hung when I first heard this. The copy protection is of the standard page, paragraph, line, word variety but with one interesting and educational difference. Despite the fact that the program asks which language you wish to drive in the protection still picks parts of the foreign manuals to ask about. Although this may not seem a problem I would like to take a wrong path on whether instruction is one or two words. This I can fix on the screen inside the protection was fine.

Over into the program there is an op-

tion to choose the car for the rally. No proper cars are shown. Although there is the option to try out the career to be built Lotus special car. By using the CD player logs many prefer tracks may then be set. This includes track selection which promises to be the most interesting part of the game. There is

also the two player option made here, but it is wise to agree on the music track you wish since both players cannot opt for different sounds at the same time. Drive the track to control and the race is off. The standard smooth scrolling road appears. There seems to be no chance of crashing out of the race it merely slows you down a little. Sometimes the challenge of maintaining a straight course on hatched tracks loses its appeal after five or ten similar minutes. I felt that the idea of just offering full throttle all the way was unappealing, there was not even any tail flick available. For a total I even drove into a solid bridge pillar and bounced off with little loss in speed.

These courses did not feel challenging. The scrolling and graphics were smooth and colorful but not exciting.

I then tried MICS, the multi directed course designer. It works on a simple menu system allowing you to select the percentage of any particular feature and then adding a letter to the code box. If this code is maintained and saved to paper it may be typed into any other Lotus III game and the course will be duplicated.

This, according to Gordini, will stop the need to have disks passed between course designers and allow for easy phone transfers. Sadly these courses, although pretty and smooth, will do not offer a great enhancement to game play.

Sadly I found that this game, despite an



“getting a little tired”

awful lot of screen real-estate, really failed to live up to its legs. The plot, like some Rocky films, is getting a little tired the star a little worn and the introduction of MICS does little to save the game from an ignominious expiry. It seems to me that the greatest achievement in this game is the ability to change around its tracks and the way except those presented by the menu. I tried hard to like the game but found it difficult to find any really positive points about it. The best and most enthusiastic comment I could manage was it's alright for ten minutes on a wiggly winter day.

Perhaps Gordini should ask Boss Carney to appear in the next edition and see if he can stop this expurgation going entirely downhill. Sorry Gordini I did not like this.

- **NIGHT & SOUND** - smooth scrolling and pretty colors, some good 3D and sounds
- **GAMEPLAY** - repetition, and not overly exciting
- **OVERALL** - perhaps this could be improved by removing it before Rocky's completion, not my cup of tea or oil



Title: **LOTUS III**
 Publisher: **Gordini**
 Price: **\$29.99**
 Developer: **Damon Howard**

THE STOS COLUMN

Welcome to another STOS Column. (Is that all you're keeping records, and an actual it is packed full of prog ram? This issue there is not one, not three, but two type in listings for you to convert. One of them is a utility and the other a game, which gives a nice balance to the column. It also means that there should be something for everybody. Both programs are written by a writer who lives somewhere down South, and who is absolutely re luctant to spell. Anyway, onto the programs.

STOS DISK MANAGER

This program is a rather handy disk manager for you to use from within STOS. It has 6 functions which include creating NEW in FAT files, delete file, create folder and display free disk space. It is very easy to use. After typing it in, press it to disk for future use. It is possible to save it as an .ACB file so that you can reload it as a STOS program. When using the program, use the up/down arrow keys and space to select an option and then follow the on screen instructions. You should find that using this necessary saves quite a lot of time when manipulating files.

SECRET CODE

This is based on an old 2D-60 (get out the history book!) game called Secret Code (surprise, surprise). You all know how to play Mastermind, right? Good. Secret Code is very similar to Mastermind, but instead of guessing a four col um number sequence you have to guess a four number sequence. If one of the numbers you enter is in the computer's four number sequence, but you enter it in the wrong place the computer will display a "1". If one of the numbers you enter is in the computer's four number sequence and you enter it in the right place the computer will display a "2". You have ten turns to guess the numbers. Go to it!

TA-TA

And so the war sets on another column. Don't forget, if you have any good (bad?) programs lying around, dist them off and send them in. It'll always be happy to receive any contributions to the column. Your program could find its way into these hallowed pages! You can contact me at the following address. Ta-Ta for now!

**Dion Guy,
STOS Column,
11 Shore Crescent,
Bishops Cleeve,
Hants,
RG3 1JZ**

Opposite - can you guess the Secret Code?

```

0010 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0020 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0030 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0040 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0050 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0060 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0070 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
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0190 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0200 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0210 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0220 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0230 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0240 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0250 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0260 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0270 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0280 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0290 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
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0950 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0960 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0970 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0980 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0990 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
1000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000

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Listing 1 - a Disk Manager in STOS

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10 rem SECRET CODE - By Dion Star
20 rem *****
30 rem
40 dim B(4),CODE(4)
50 on : key off : hide : curs on
60 for I=1 to 4
70 CODE(I)=chrval(I)
80 next I
90 home : inverse on : : centre "SECRET CODE" : inverse off : print
100 locate 0,2 : centre "Remember there and in right place"
110 locate 0,3 : centre "Remember there and in wrong place"
120 draw 0,56 to 519,56
130 locate 0,5 : centre "You have to guess a four digit number." : print : print

140 centre "Each digit must be between 0 and 9." : print : print
150 centre "You have 10 chances."
160 draw 0,56 to 519,56
170 draw 0,172 to 519,172
180 print
190 for S=1 to 10
200 B(4)=0 : M=0
210 locate 4,0=10
220 print "You guess"$(space$(B)) : locate 21,0=10 : input "i"$(B)$(B)
230 if len$(B)$(B)$(B)$(B) then print : centre "Enter 4 digits" : curs off : wait 50
: curs on : locate 0,curs : print space$(B) : goto 210
240 for I=1 to 4 : B(I)=asc$(chr$(B)$(B)$(B)$(B),I,11)-48
250 if B(1)=0 or B(2)=0 then print : centre "0 to 9 only!" : curs off : wait 40
: curs on : locate 0,curs : print space$(B) : goto 210
260 next I
270 for S=1 to 4 : if B(S)=CODE(S) then B(S)=1
280 if B(4) then locate 0,22 : centre "Well done - you've done it!" : goto 460
290 next S
300 for S=1 to 4
310 for E=1 to 4
320 if CODE(4)=B(E) then M=M+1 : B(E)=4 : goto 260
330 next E
340 next S
350 M=M+B
360 locate 50,0=10
370 E=0
380 if B(1) then 400
390 for C=1 to B(1) : print "C" : lno E : next C
400 if M=1 then 420
410 for C=1 to M : print "C" : lno E : next C
420 if E=4 then print "-" : lno E : goto 420
430 next E
440 for A=1 to 4 : ANSWER=ANSWER+str$(CODE(A)) : next A : ANSWER=ANSWER+" "
450 locate 0,22 : centre "Too Bad! The answer is "ANSWER
460 locate 0,34 : curs off : centre "Do you want to play again ? (Y/N)"
470 A=chrval(1) : if upper$(A)="Y" then goto 50 else if upper$(A)="N" then goto
490
480 goto 170
490 default : end

```

STORM MASTER

A tactical strategic war/strategy game. This is a sort of cross between John Carter of Mars and Populous. The opening screens are most effective showing off all the dramatic scenes that the Silmarils team have become famous for. Some atmospheric sound tracking has the player ready for a game of momentous proportions. The first screen, which offers a click and try menu system, provides much fun, but then the game fails to impose as much as it might.

The object is to create a country that can sustain both land and your projected armies. It would also seem necessary to create the winds powerful through the valleys of religion which also takes time and money and an eye for the seasons of the six month year. The secret of this game seems to be in balancing

the budget to keep the seven main tiers of your cabinet happy. Book balancing is not all that needs to be done however as the money and winning funds after you despite the fact you only recently completed profitable trading two seasons ago.

To defend and attack takes flying ships and thus you access another menu and lose more money designing the right type of ship for the job and then appointing the correct crew. All these options come with excellent graphic backdrops but once this is taken account of there is very little left and gone. The basic premise in Kingdoms and the player involvement drops rapidly after the first few halting steps. Once the interface is sorted out the actions become reactive rather the

planned and waiting becomes irrelevant in a mad hurry to substitute your advisors.

I find it very hard to continue this game further. The overall mix are fine, the sound is good and the overall aesthetic effect is of a high standard. Unfortunately there is not the depth of gameplay or even the involvement of characterisation to merit much more comment. It might be becoming cynical in the face of commercial campaigns but this game does not offer a proper challenge. This consisted one of early ST offerings from the days when graphics were all and plot was an aside. It is very pretty but with little true substance.

FACTS

Title: **STORM MASTER**
Publisher: **Silmarils**
Price: **£29.99**
Reviewer: **Bonnie Howarth**

SIGHT & SOUND

Very good, colours are strong
FX and music superb

GAMEPLAY

Looking in originally and any
long term desire to play further

VERDICT

(Over stressed) over topped and
over done, needs to be
stronger a challenge for being for
£29.99



FACTS

Title: **UTOPIA, THE NEW WORLDS**
Publisher: **Granite**
Price: **£19.95**
Reviewer: **Dorothy Howarth**

SIGHT & SOUND

Does one of the same quality as the parent game and one quite subtle

GAMEPLAY

At least as good if not better than the original, some smoothing to a little smoother

VERDICT

Worth getting if you own a 386-processor



This piece of software is an add on to Utopia which received a review several months ago. In essence Utopia is a Populous style of game in which the player creates and maintains different planets to achieve a balance of resources and defence strategies. Starting from virgin ground there needs to be power resources and living quarters established. There are reasons to defend and wars to fight which all needs to be balanced with a growth rate in numbers and technological ability. Anyway this is not the time or place to review Utopia.

These New Worlds are the products of new space data

UTOPIA

THE NEW WORLDS

disk and then need the original game to play. They provide less new and noticeably different

backgrounds to play out your tactics of world generation and domination. Graphically they are of the same high quality as the originals and the command interface is also the same. The two problems stem from differing land mass styles and from the new intelligences that the player has to overcome. I believe there have a tougher outlook and manage a smarter game.

The main work screens still look like Populous and the placement of icons is also the same, indeed having spoken with old Utopia fans I am informed that little of the overall structure has in fact changed. It was remarked on that the world now looked more like an

ice field rather than a desert and that some of the tines and forested tactics seemed to fall a little, but apart from that there was little else of note. Every year level of frontier worlds are the same. This too seems to suffer from separation although in this form of game that is not altogether a bad thing.

The maintenance of the families allows the player to continue playing without distractions and therefore allows more concentration on the important environmental and military factors that are the essence of the game. As a data disk with new challenges this succeeds very well. It has now moved me to try the whole game myself. It offers more control than Populous and some better opportunities. If you have Utopia this could well be a useful addition.

WHERE CAN I FIND

The Atari 8-bit computers are, without question, the finest home-computers ever designed and can still hold their own against any home computer. More powerful than any 8-bit and much easier to access than any 16-bit, it is a great pity that software and hardware support is dwindling. You can still find support for your machine, though, and this directory should get you on the right track. It is by no means comprehensive and we would be happy to receive details of any other companies, anywhere in the world that still support Atari.

We cannot guarantee what response you might get if you write to any of these companies, but give it a try. They need your support as much as you need theirs. Send a couple of international reply coupons in an envelope and, if you don't get a reply, the more you hear is a few bits. But if you do get a response, it could open up a whole new world and add years to the useful life of your Atari. Don't forget to keep us informed if you find good support for your Atari Classic.

Software Infinity

600 East Waring Avenue
State College, PA 16801
Local PD selection. Here just began marketing commercial games from overseas.

Design Software

PO Box 134
Oxley, QLD 4160
Takes 818 16-bit upgrade board, TransKey hardware for using IBM keyboards on the 8-bit, and other hardware.

8-Bit ComputerVision

2708 Scott Boulevard
Santa Clara, CA 95050
Tel: (408) 356 8800
High selection of software and hardware items. Also some new commercial games, as available elsewhere.

Signature Software

2094 Appleton Dr
Lafayette, IN 47905
Good PD/software selection with extensive documentation.

Change in Hand

1210 Vista Place
Irvine, CA 92714
Independent programmer has produced 2 excellent commercial quality games for the 8-bit.

Diamond Software

505 West Street
Mansfield, MA 02040
Another independent, producing good educational software.

UltraDisk

16 East 10th Street
Brooklyn, NY 11215
8-bit specialty software.

NEEDS Software

18 Wrenly Drive
Parsippany, NJ 07054
Printing related software.

IT Computers

2144 S. S. (Interstate-405) Hwy
Valley Plaza Shopping Center
Beaverton, Oregon 97005
(503)297-9425

RedCom

PO Box 1043
Peterborough, Ontario,
Canada E3B1K7
The largest PD/software selection.

CompuIt

PO Box 5100
San Luis Obispo, CA
93303-5100
Classic items galore.

No Pella Software

600 East 22nd Street
Scarsdale, NY 10587
Classicists & Printing specialists.

Miles Miller Software

270-021 Canisok Road,
Chesham,
Chesham, Middlesex
TW11 2JF
English
Specializes to everybody and, apparently highly regarded in the USA.

Electronic Clinic

416 Del Ray Ave
Brynolyn, MD 20814
Specialized equipment.

Kale Software

9 South Co.
Victorville, CA 92380
Assorted home disks.

Success Software

1871 East 10th Street,
Irvine, CA 92714
213 750-1129
PD choice lists.

Alpha Systems

1613 Starlight Drive
Marlinton, OH 44056
Utility software & hardware.

Amnesia Technologies

15208 Inverness Street
San Leandro, CA 94676
215 352 5626
Large selection of commercial software of unusual games, and hardware replacement parts.

Best Electronics

2021 The Alameda, Suite 290
San Jose, CA 95126
(415) 243 8000
Bases on the Atari hardware store, if they don't have the part you need, nobody does.

8-Bit Software

202 West Bedford Ave,
Suite 104
Fresno, CA 93711
PD/Software.

C&T ComputerCenter

PO Box 801
Clinton, OK 73801

NEPDS

800 North Huntington St,
Meriden, CT 06450

Phoenix Atari 8-Bit

Box 331 Lyness Road
Moorpark, NJ 07444

Yuban Software

PO Box 600
Martinez VA 22111-0600

Newell Industries

P.O. Box 263
Wyle, TX 75086
Tel: (214) 442 9812

Innovative Concepts

35179 Shaver Drive
Watson, CA 95090
(415) 283-0700
Accessories, hardware, PD software.

Q&A

PO Box 17600
Beverly Hills 91417
(714) 420 9400
Specialty hardware items, 8-bit repair service.

San Jose Computers

940 Blossom Hill Road
San Jose, CA 95128
(408) 985 2000
New and refurbished hard ware and software.

Entertainment Excellence

1803 Princeton Place
Minnetonka, MN 55305
International 8-bit software.

East Hartford Computer

202 Hartford Street
East Hartford, CT 06109
International software for all computers.

Amiga Software

PO Box 1033
Beverly Station, NY, NY
10401-1033
Market a new 8-bit commercial game.

Tand Computers

500 Galtwood Arroyo Blvd
Berkeley Park, Maryland
21144
(301) 544-8943
Now offers a selection of software and refurbished hardware.

Starbridge User Group

80 Harbor Road
Newbridge
West Midlands DY8 4LA
England
(0544) 209079
Large PD/Software library.

Orbis International

11 Milliken Road, Perle
Dover, NH 03826
Hardware and software, including 8-bit products.

Miss Mount (Derek Ford)

200 Chester Road
Berrilly, West Midlands
B01 3SS, UK
Large selection of commercial software, also hardware and replacement parts.

Tago Developments

20 Brimley Avenue
Walsley, Ind
Kent
CT14 7QS
Commercial 8-bit software.

Real - a list of magazines still supporting the 8-bit Atari.

Current Notes
120 North Johnson Road
Waukegan, IA 52078
A truly excellent Atari-oriented magazine, supporting both 8-bit and 16-bit.

Atari Interface

2087 Bluebonnet Circle
Aurora, IL 60018
(312) 970-8828
A magazine supporting both 8-bit and 16-bit, with input from Atari User Groups in the US, Canada and the UK. They also produce a monthly Atari 8-bit disk.

New Atari User (PAGE 4)

P.O. Box 34
Suffolk, VT 0510
England
(0705) 210000
A professionally produced magazine supporting both 8-bit and 16-bit, also large PD library for both machines and commercial software.

EXCEL (Robert Winstel)

21 Strangely Way
Bromwich
Irvine, Warwickshire
CV41 1JG
Scotland
Good based magazine and commercial software.

This list was originally published by the 8-bit magazine club in July 1985 and updated by Starbridge User Group whose address was included in shaded areas. Many thanks to them and to all who are still supporting the 8-bit. Long may it continue!

Please keep us informed if you know of any companies.

